GOLDER
MEMBER OF WSP

DATE July 30, 2021 **Project No.** 20368099-1000-Rev0

TO Bijaya Adhikari, PhD, Science and Regulatory Coordinator
Inuvialuit Water Board, 151 Mackenzie Road, Mack Travel Building, P.O. BOX 2531
INUVIK, NT, X0E 0T0

FROM Aurélie Bellavance-Godin **EMAIL** aurelie_bellavance@golder.com

RE: NOTIFICATION UNDER WATER BOARD LICENCE N7L1-1834
SHELL CANADA ENERGY, CAMP FAREWELL

Dear Dr. Adhikari,

Following the notification sent to the Inuvialuit Water Board (IWB) on June 18, 2021, and on behalf of Shell Canada Energy (Shell), Golder Associates Ltd. (Golder) is submitting the updated Emergency Response Plan (Attachment 1), Spill Contingency Plan (Attachment 2) and the barge Waste Management and Disposal Plan (Attachment 3) for confirmatory sampling of previous remedial excavations carried out in 2018 and 2019 at Camp Farewell, in the Inuvialuit Settlement Region (ISR), Northwest Territories (NWT) (the Site), under Water Board Licence N7L1-1834.

The objective for the proposed 2021 and 2022 confirmatory sampling is to assess previously remediated areas and to close on- and off-site data gaps. Throughout the field program, Shell will continue to follow the terms and conditions outlined in Water Licence number N7L1-1834 (2017 term amendment).

The Environmental Impact Screening Committee (EISC) reviewed and approved the proposed 2021 and 2022 confirmatory sampling as an amendment to an existing approval (EISC file 05-18-01) for Camp Farewell (Attachment 4).

HTC Consultations

The consultation record with the Aklavik, Tuktoyaktuk and Inuvik Hunters and Trappers Committees (HTCs) is presented in Tables 1 to 3. A teleconference consultation with the Tuktoyaktuk HTC is tentatively scheduled for August 4, 2021. A summary of this meeting will be forwarded to the IWB.

Golder Associates Ltd.
16820 107 Avenue, Edmonton, Alberta, T5P 4C3, Canada T: +1 780 483 3499 F: +1 780 483 1574

Closure

We trust the information provided herein meets your requirements. If you have any questions about the contents of this letter, please contact the undersigned, or Christopher Boyd (403-691-2855; Christopher.Boyd@shell.com), at your convenience.

Golder Associates Ltd.

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Project Manager
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Attachments: Tables
Emergency Response Plan
Spill Contingency Plan
Waste Management and Disposal Plan
EISC Decision Letter

Tables

Table 1: Consultation Record with Aklavik Hunters and Trappers Committees (HTCs)

Date	Method of Contact	Result
04-Jun-21	Sent letter via email	No response
15-Jun-21	Follow up email	No response
23-Jun-21	Called HTC, left a message for resource person to call back	No response
07-Jul-21	Called HTC, left a message for resource person to call back. Followed this with an email as well on same day.	No response
09-Jul-21	Called HTC, left a message for resource person to return call.	Michelle Gruben returned call at 1:30 pm Aklavik time. She indicated that she thought the Shell letter was being reviewed by the HTC board in August. Requested if it was possible to get some feedback before then, she said that most of the board members (including herself) would be going inland July 10 and would be unavailable. She offered to forward the Shell letter (originally sent June 4) to the board members and asked them to respond by end of the day. No further response received.

Table 2: Consultation Record with Tuktoyaktuk HTC

Date	Method of Contact	Result
04-Jun-21	Sent letter via email	No response
15-Jun-21	Follow up email	No response
23-Jun-21	Called HTC	Was informed the HTC board would review the Shell letter at the June 28 meeting and would communicate the outcome.
07-Jul-21	Called HTC, spoke with Hester (resource person)	Hester emailed back same day indicating the HTC wanted to have a consultation.
28-Jul-21	Called HTC to request a meeting for August 4	Awaiting confirmation.

Table 3: Consultation Record with Inuvik HTC

Date	Method of Contact	Result
04-Jun-21	Sent letter via email	No response
15-Jun-21	Follow up email	No response
23-Jun-21	Called HTC	Was informed the HTC board would review the Shell letter at the June 30 meeting and would communicate the outcome.
07-Jul-21	Called HTC, left a message for resource person to call back. Followed this with an email as well on same day.	No response
09-Jul-21	Called HTC	Was informed that Patricia (resource person) is on vacation until July 19 and should call back then.
19-Jul-21	Called HTC	Spoke with Patricia from Inuvik HTC; she needs to review the minutes from the meeting on June 30 but she is pretty sure that the board supported the work. She is going to send confirmation by end of day (EOD) July 20. No further response received.
22-Jul-21	Called HTC	Spoke with Patricia again about getting her to review the meeting minutes and confirm the board supported the project. No further response received.
28-Jul-21	Called HTC and left a message asking for confirmation that the HTC supported the project.	No response

Emergency Response Plan

GOLDER
MEMBER OF WSP

REPORT

Camp Farewell Emergency Response Plan (ERP)

Camp Farewell 2021 Soil and Groundwater Assessment

Submitted to:

Shell Canada Energy

400 - 4th Avenue SW, P.O. Box 100
Station M, Calgary, Alberta T2P 2H5

Submitted by:

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Edmonton, Alberta, T5P 4C3

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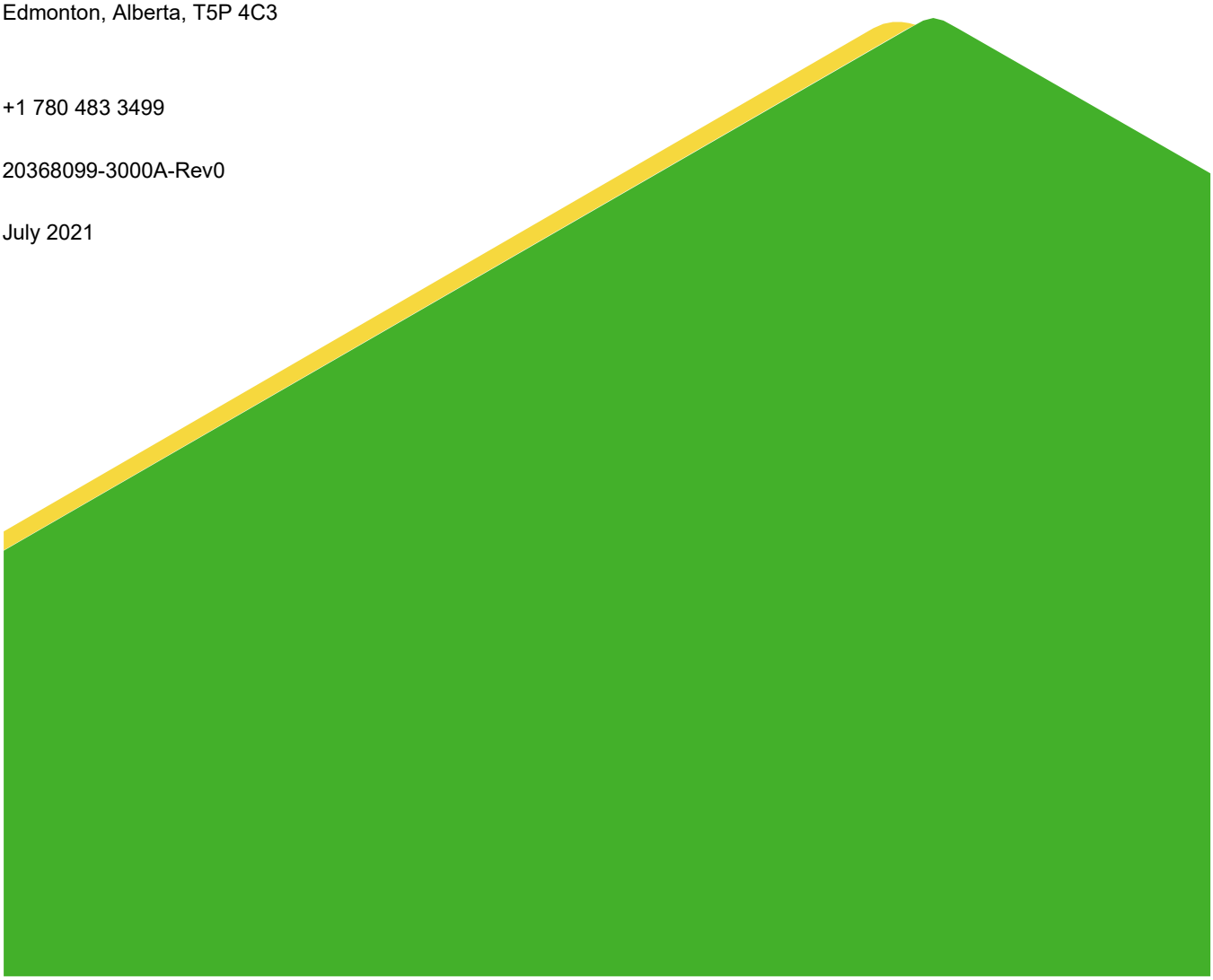
20368099-3000A-Rev0

July 2021



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1.0 EMERGENCY RESPONSE PLAN OBJECTIVE

The purpose of this Emergency Response Plan (ERP) is to:

- Provide all project staff (including subcontractors) with a list of identified potential emergencies for 2021 field program at the Camp Farewell located at: 69° 12' 30.0" N latitude and 135° 06' 04.4" W longitude, Niglintgak located at 69° 23' 35.27" N latitude and 135° 22' 28.23" W longitude and Unipkat I-22 located at 69° 11' 36.07 N latitude and 135° 20' 33.88" W longitude.
- Assist the project team in determining appropriate responses to potential emergency situations.
- Provide the project team with established procedures and guidelines for emergency response.
- Provide the project team with the tools needed to facilitate a quick and effective response to an emergency.
- Provide emergency response flowcharts and contact information to facilitate a quick and efficient response/evacuation if required.

It is designed to preserve the safety of the crew, minimize the impact of emergencies to environment, property, equipment, and processes, and to restore normal operations as efficiently as possible.

1.1 Emergency Event

An emergency is any event that requires an immediate response to avert damage or threats to:

- the health and safety of our employees and / or our sub-contractors and visitors to the Site;
- the environment;
- the property or equipment;
- the reputation of our company and client.

If an emergency occurs during the project, personnel involved must take the appropriate immediate action to protect their own personal safety, the safety of any other people involved and of the environment.

2.0 EMERGENCY RESPONSE TEAM RESPONSIBILITIES

2.1 Site Supervisor

The Site Supervisor ensures that all personnel on-site know and understand their responsibilities in the event of an emergency on-site as outlined within this plan. They establish the muster points and emergency helicopter landing area on the Site. The role and responsibilities of the Site Supervisor includes, but not limited to the following:

- They are the primary contact for all personnel to report on-site emergencies. They will immediately assess the emergency and ensure that all emergency response procedures are followed according to the plan.
- They will ensure all personnel are made aware of the emergency and will ensure when an injury has occurred that the injured party receives immediate and appropriate care required for their injury.
- They will communicate all incidents as soon as possible to the Golder Project Manager.

- They will liaise with the Site medic to arrange for off-site medical assistance, if required.
- They will lead the investigation process of all incidents.
- They will lead planned emergency response drills and debrief sessions.
- They will ensure this plan is updated as appropriate and any changes are communicated to on-site personnel

2.2 Site Medic

The Medic is responsible for inspecting and maintaining first aid equipment and supplies and ensuring adequate number of first aid kits for the number of personnel present at the Site. The Site medic will provide injury / illness response and immediate care for an injured / ill worker. The medic will assess and determine if an injured / ill person can be safely treated on-site or requires emergency evacuation (boat or air vac) from Site. The Medic and Site Supervisor will coordinate emergency response actions with off-site medical facilities and air ambulance. The Site medic will document all injuries and illnesses in a confidential first aid log which will be kept on-site and initiate care management. Complete Alcohol and Drugs testing will be performed by an approved laboratory in Yellowknife, NWT.

2.3 On-Site Personnel

All personnel are expected to report all incidents immediately to the Site Supervisor who will ensure the emergency response plan is followed. Personnel are expected to know and understand how to respond in an emergency as per this plan. All personnel must participate in planned emergency response drills. Any medical conditions that could jeopardize the health and well-being of personnel on-site should be disclosed to the Site Medic prior to starting work such as allergies to bees, wasps, prescription medication, etc.

3.0 CAMP FAREWELL EMERGENCY NOTIFICATION AND COMMUNICATION

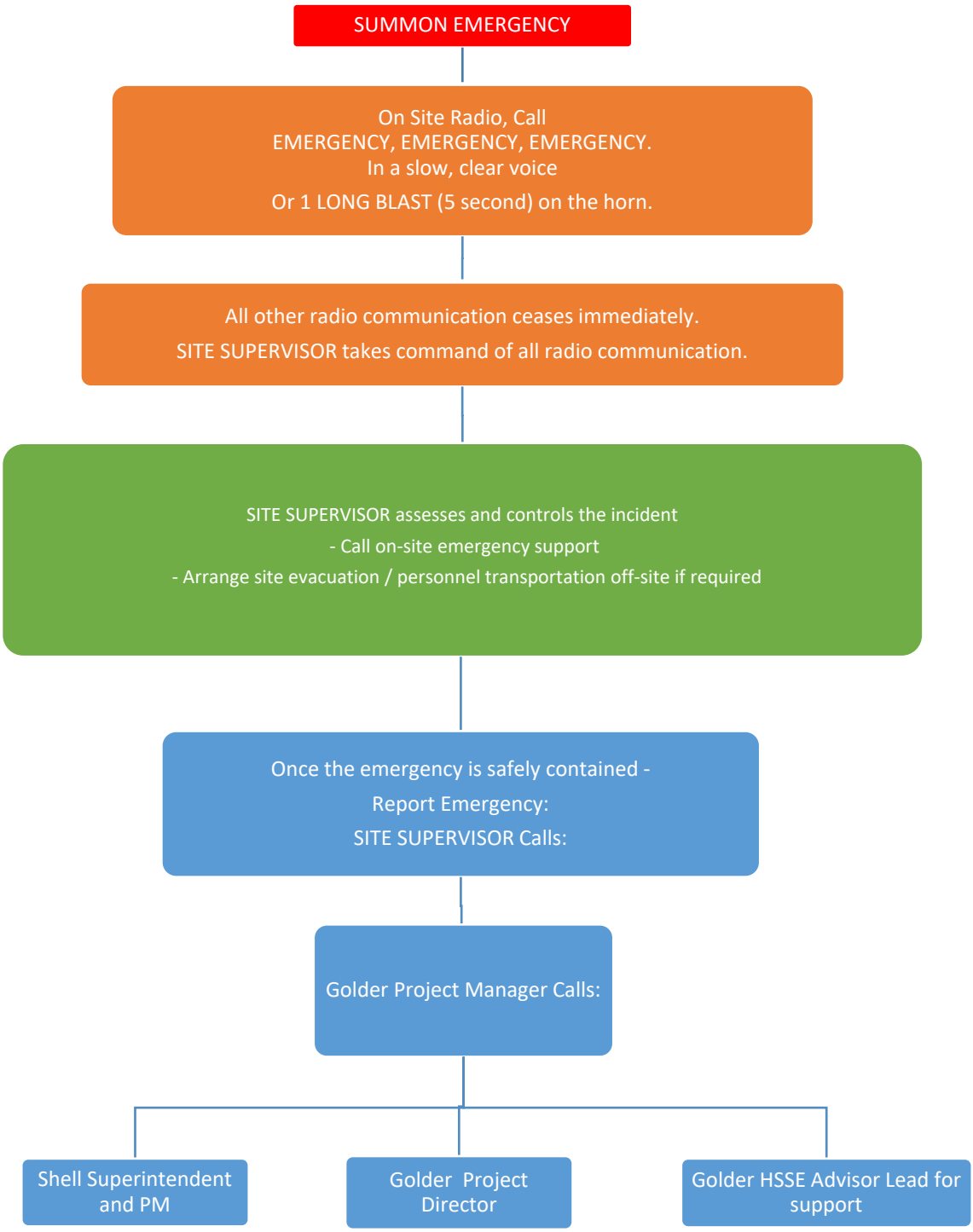
In the event of an emergency (medical and non-medical), the actions initiated by workers should follow the procedures established in this ERP. Once all immediate actions have been taken to protect life, health and safety of workers, the emergency notification and communication protocol will be followed. The emergency notification and communication flowchart are included in Figure 1.

Two-way radios will be used as the primary source of communication while on-site. Satellite Phones will be the primary source for external communication as there is no cell reception on-site. Additionally, there will be a backup Satellite phone and Satellite based emergency communication device (inReach). All injuries, illnesses and other incidents (e.g., near losses) will be reported to the Site Supervisor, as soon as possible. All injuries and incidents will be documented and investigated as soon as practical. Investigations will be led by the Site Supervisor. The Shell Superintendent must first be notified by the Golder Project Manager followed by the Shell Project Manager of all incidents following the matrix below.

Table 1: On-Site Incident Communication and Reporting Matrix

Incident type	Monday to Friday	Weekends and Holidays
■ Near Loss ■ Security (theft, trespassing, vandalism) ■ Environmental spill (does not meet regulatory compliance) ■ Property/Equipment Damage ■ Injury No Treatment ■ Injury First Aid	■ Site Supervisor calls Golder PM ■ Golder PM informs Golder PD and Golder HSSE Advisor ■ Golder PM calls Shell Super intendent to report ▪ If no response, leave a voicemail and follow up with an email ▪ Follow-up with call to Shell PM	■ Site Supervisor calls Golder PM to report ▪ if no response leave voicemail and follow up with email, cc Golder HSSE Advisor and Golder PD ■ Site Supervisor to call Shell Superintendent to report ▪ if no response leave voicemail and follow up with email ▪ Follow-up with call to Shell PM ■ Golder PM to ensure incident notification escalates the following business day.
■ Loss Medical Treatment ■ Environmental Spill (regulatory non-compliance) ■ Discharge of Firearm ■ Missing Person ■ Fire/Explosion ■ Site Evacuation	■ Site Supervisor calls Golder PM ■ Golder PM informs Golder PD and Golder HSSE Advisor ■ Golder PM calls Shell Superintendent to report ▪ If no response, leave a voicemail and follow up with an email and subsequent call on the following day ▪ Follow-up with call to Shell PM	

Figure 1: Emergency Notification and Communication Flowchart



3.1 Camp Farewell Emergency Contact List

Camp Farewell Site Location: (69° 12' 30.0" N latitude and 135° 06' 04.4" W longitude)

Emergency Contacts		Number
Inuvik Hospital		(867) 777-8000
Office of the Chief Public Health Officer (COVID-19 Reporting)		(867) 920-8646
Canadian Helicopters **24 Hours Emergency Air Ambulance*		(780) 429-6900
Canadian Helicopters (Inuvik, NT location)[a]		(867) 777-2424
Inuvik RCMP		(867) 777-1111
Inuvik Fire		(867) 777-8611
Canadian Coast Guard Search and Rescue (24 hr)[b]		(800) 267-7270
Coast Guard		(867) 777-2235 or *16 on a cell phone
NT Spill Reporting Line (24 hr)		(867) 920-8130
Environment and Natural Resources - Inuvik Office		(867)-678-6650
Wildlife Emergencies (24 hr)		(867)-678-0289
To Report a Wildfire (24 hr)		(877)-698-3473
Golder Crisis Hotline (from within Canada)		(866)-249-0439
Work Care (consultation for work related injuries/illnesses)		(888)-449-7787
NT WSCC Incident & Injury Reporting Line		(800)-661-0792
Poison Control Centre		(800)-332-1414
Golder Emergency Contacts	**Name**	**Number**
Site Supervisor	Peter Tan	Cell: (780) 868-6128
Project Manager	Aurelie Bellavance	Cell: (403) 816-0245
Project Manager Alternate	Punchalee Clair	Cell: (902) 221-6875
Project Director	Lenz Haderlein	Cell: (780) 619-0932
HSSE Advisor Lead	Anita L'Arrivee	Cell: (780) 218-3752
HSSE Advisor Alternate	Darren Nippers	Cell: (403) 472-0425
Human Resources	Chelsea Baglien	Office: (403) 216-8931
Shell Emergency Contacts	**Name**	**Number**
Superintendent	Kyle Thompson	Office: 403-691-3174 ext. 3174
Project Manager	Christopher Boyd	Office: 403-691-2855
Subcontractor Emergency Contacts	**Name**	**Number**
E.G.T Manager	Douglas Saunders	Cell: (867) 678-0045
E.G.T Site Supervisor	TBD	
On-Site EMT	TBD	

Note:

a) Canadian Helicopters is an unauthorized Shell service provider. Shell Business Leader approval for emergency use is required.

b) Canadian Coast Guard Search and Rescue is connected with the Joint Rescue Coordination Centre Trenton and share Communication and Traffic Services radio systems.

3.2 Muster Points and Helicopter Landing Area

Camp Farewell Project Site Helicopter landing area Coordinates:

69° 12' 30.0" N latitude and 135° 06' 04.4" W longitude in degrees, minutes, and seconds (DMS)

3.3 Golder Crisis Response Team

A crisis, triggering the activation of the Golder Crisis Response Team, is any event or circumstance which requires an immediate response and damages or threatens in a material way:

- The health and safety of our employees or other people including sub consultants and contractors,
- The properties / assets of our company and / or,
- The reputation of our company.

3.4 Activation of Golder Crisis Response Team

If a crisis occurs, the incident scene must not be disturbed except so far as is necessary to attend to injured persons, prevent further injuries or death and protect the environment that is endangered as a result of the emergency. Follow the documented emergency procedures as outline within this ERP and report the crisis to the Project Manager. The Project Manager is responsible for activating the Golder Crisis Hotline. If the Project Manager cannot be reached, the on-site Safety Representative will place the call through the Golder Crisis Hotline.

The Golder Crisis Response Team may be activated by calling the Crisis Hotline:

- The caller must provide the information outlined below:
  - Hello, my name is (First Name, Last Name), I am (function, Country), and I can be reached at (Phone number). The following incident (type of incident) has occurred on this site (name of site) in (location – City, Province/Territory, Country, etc.). **"Please follow the Golder Americas Crisis Response Plan."**
  - The caller must ensure that the operator has understood the message, the coordinates/location of occurrence and nature of the incident.
- Once activated, the Golder Crisis Response Team will:
  - Communicate with the Golder employee reporting the crisis to clearly identify and confirm the nature and magnitude of the crisis and determine appropriate actions to be taken in the field and in support of the project team,

- Notify the National Crisis Coordinator and the Golder Canada President,
- The National Crisis Coordinator in consultation with the President will determine the appropriate level of CRT involvement and will initiate CRT notification as needed.

4.0 EMERGENCY RESPONSE REQUIREMENTS

A First Aid Risk Assessment was completed for this project as required by the Northwest Territory Occupational Health and Safety Regulations to determine the first aid attendants, supplies and equipment, facilities and transportation required to render prompt and appropriate first aid to worker and to render prompt and appropriate transportation for injured workers to the nearest appropriate medical facility or hospital. As per the regulations, the Site is categorized as high-risk in respect to the type of injuries that could occur at the work site.

As per Part 5 of the Northwest Territory Occupational Health and Safety Regulations the project must meet these minimum requirements pertaining to First Aid for the Site:

Applicable Schedule	Number of Workers at the Site	Minimum First Aid Kit and First Aid Attendant Level
Schedule D: Minimum First Aid Kit Requirements: High Risk Work Sites	■ 2-25 Workers at Site	■ 1 small Type 3 First Aid Kit
Schedule H: Minimum First Aid Attendant Requirements	■ 2-10 Workers at Site	■ 1 Advanced First Aid Attendant

Due to the work site's isolated location, the travel time and modes of transportation (boat or air evac) available to the nearest medical facility and the potential for weather to significantly impair transportation availability, the Site will be equipped with an Advanced Health Care Provider from AMS and equipped with medical equipment.

4.1 First Aid Room

A first aid room is identified and established on board the 802 Camp Barge. The Site Medic is responsible for operating and maintaining the first aid room and equipment. Additional first aid kit – Level 2 will be on board the transport boat.

4.2 Training Requirements

All personnel shall receive an orientation on this ERP by the Site Supervisor on their first visit to Site and prior to starting work. All first aid trained personnel will hold a valid First Aid training certificate. All Site personnel will be trained for the use of fire extinguishers and spill response equipment. The training matrix is in the Site HSSE Management Plan.

5.0 GENERAL SITE EVACUATION

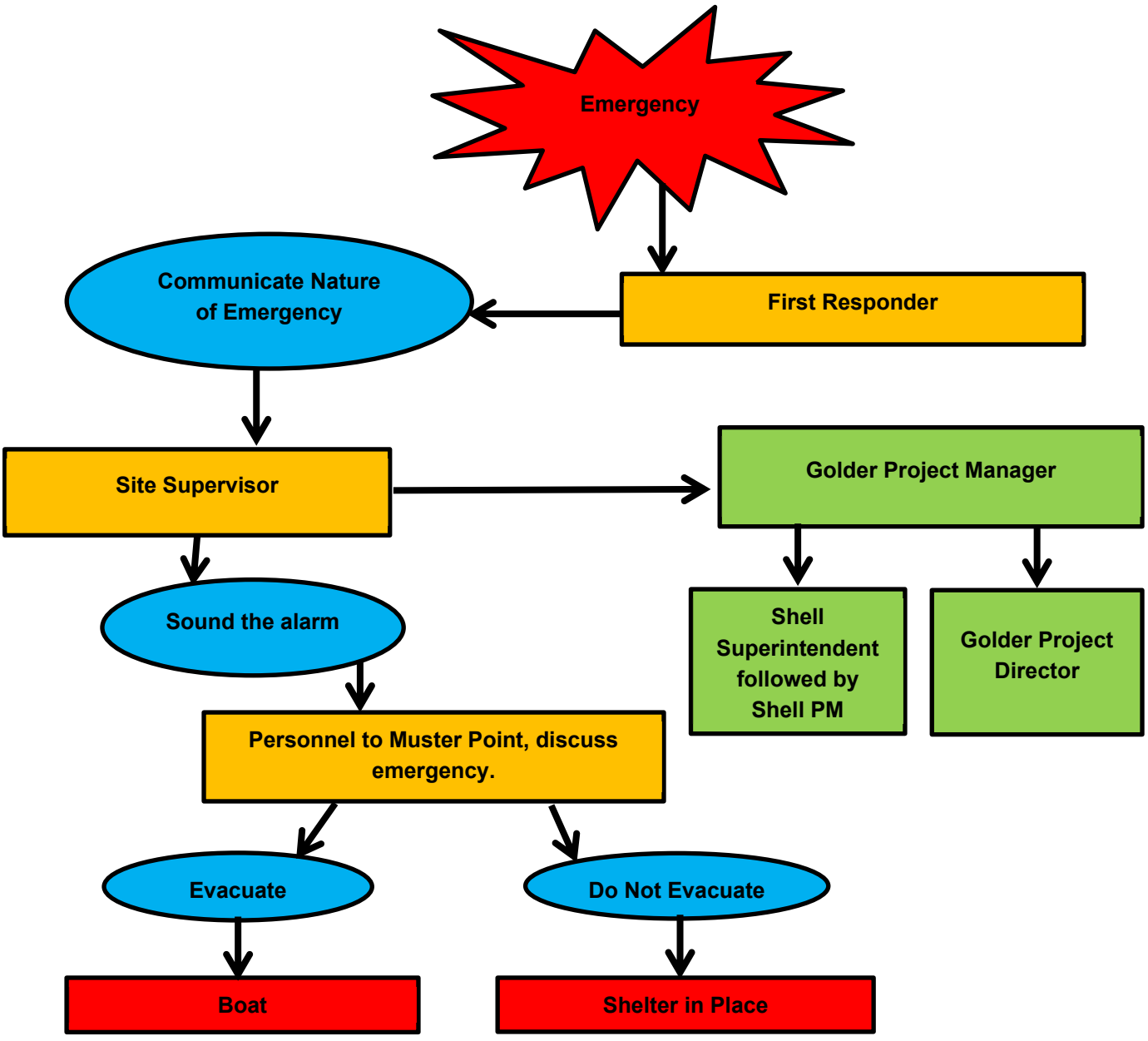
In the event of a Site wide emergency, the First Responder will communicate the nature of the emergency via radio and sound the alarm. Upon the order to muster:

- All personnel will stop working, shut down and secure equipment,
- All personnel will muster at the Muster Point,
- Site Supervisor will confirm all personnel are accounted for,
- The Site Supervisor will determine if evacuation from Site or shelter in place is required,
- The Site Supervisor has the authority to order a Site wide evacuation in the event of a catastrophic or potentially catastrophic emergency to protect the health and safety of personnel. All personnel will be evacuated to Inuvik by boat or air (if deemed necessary).

To initiate a Site wide evacuation, the Site Supervisor will call “evacuate, evacuate, evacuate” over the Site radio.

Upon the order to evacuate:

- Each crew will confirm the order with the Site Supervisor.
- All personnel will stop working, shut down and secure equipment.
- Move to the project evacuation point / muster station (Parking Lot).
- Confirm with the Site Supervisor when all crew members are accounted for.
- Visitors will be ushered by designated Site personnel to the muster station.
- Follow instructions from the Site Supervisor for safe evacuation from Site.



6.0 SITE SPECIFIC EMERGENCY RESPONSE PROCEDURES

The emergency situations with the greatest likelihood of occurring at or near the project Site have been identified and are listed in this section. In addition to the potential emergencies identified, it is recognized that emergencies are often unexpected and can arise at any time. It is the responsibility of the Site Supervisor, in conjunction with the Site Medic and lead subcontractors to assess conditions on a regular basis and adjust plans as new situations are identified. Any changes and/or additions made to the HSSE Plan and this ERP must be communicated to the Project Manager.

6.1 Fire or Explosion

In the event of fire, first responder will attempt to put out a fire using a fire extinguisher if safe to do so, if not radio for help.

To report a fire in progress:

- Remain calm.
- Sound the alarm/Call “Fire, Fire, Fire” on a radio.
- Evacuate endangered personnel to Muster Point.

Using a fire extinguisher:

- Before deciding to use a fire extinguisher to fight a fire:
  - Be sure that the fire is small and not spreading,
  - You have the correct type of fire extinguisher for what is burning,
  - Stand with an exit at your back; and
  - Stand several feet from the fire.
- Pull the pin (if necessary, turn the pin to break the zip tie),
- Aim the nozzle at the base of the fir,
- Squeeze the handle slowly,
- Sweep from side to side,
- Drop the fire extinguisher and evacuate if the fire is spreading.

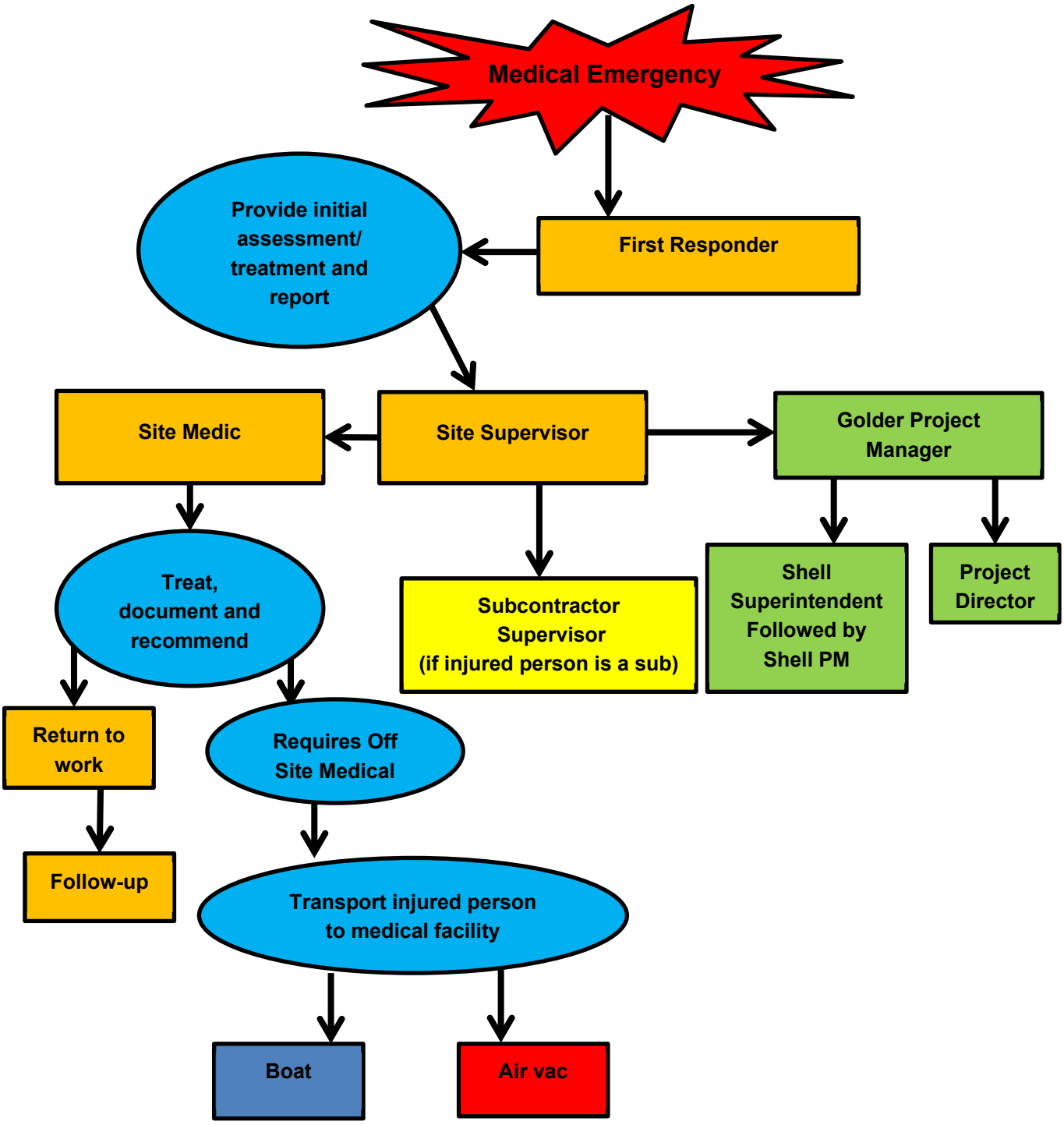
6.2 First Aid and Medical Assistance

All minor injuries or illnesses (small cuts, lacerations, sprains, strains etc.) shall be reported immediately to the designated Site Medic and documented following the injury loss reporting process. The injured person’s condition will be assessed, and appropriate first aid treatment will be applied if/as required. Care management begins the moment a person is injured and concludes when a worker returns to normal condition and duties. The Site Supervisor will lead care management and work with the injured worker to ensure appropriate mitigations are put in place that allow an injured worker to recover. The injured worker’s conditions will be monitored daily (by the medic) following the report of an injury.

In the event of a serious or potentially life-threatening injury/illness:

- Call goes out on the radio in a calm clear voice “MEDIC MEDIC MEDIC”.
- All work on-site stops immediately. All crews stand down and maintain radio silence.
- Site supervisor or alternate takes immediate and sole control of the emergency via radio.
- Medic at the Site responds immediately, mobilizes first aid equipment and responds to the Injured Person (IP).

- Wildlife monitor will assist with affected person(s) carry/move/transport in case it is required.
- Medic to call health care centre and determine the appropriate transportation method based on the condition of the affected person(s) when assistance beyond on-site capabilities is required.
- Site Supervisor to confirm transportation via boat to Inuvik and via car/truck to Inuvik Hospital.
- Site Supervisor or designated Golder employee to accompany injured worker to Inuvik Hospital.
- If the injured worker cannot be moved, on direction of the Medic, the Site Supervisor will call Canadian Helicopters to arrange Air medical evacuation at **(867) 777-2424** and provide the following details:
  - Your name and location **(at 69° 12' 30.0" N latitude and 135° 06' 04.4" W longitude).**
  - Patient information (name, age, gender).
  - Brief description of events leading to the injury/illness.
  - Nature of injuries/illness.
- Helicopters will fly only under Visual Flight Rules (VFR) conditions, by line of sight and visibility, meaning they will not be operational during adverse weather where there is limited visibility (1 mile visibility) and in darkness. Responding Helicopter from Inuvik will require approximately 30 minutes to fly to Site. All helicopters will have stretcher configuration capability and space for medics to provide in-flight care.
- Coast Guard will respond to any emergency called to their attention at any time. Their response time is typically 3-4 hours. This will also be the backup plan in the event where Canadian Helicopters is not available during medical emergencies.


Medical Emergency
First Responder
Provide initial assessment/ treatment and report
Site Medic
Site Supervisor
Golder Project Manager
Treat, document and recommend
Subcontractor Supervisor (if injured person is a sub)
Shell Superintendent Followed by Shell PM
Project Director
Return to work
Requires Off Site Medical
Follow-up
Transport injured person to medical facility
Boat
Air vac

6.3 Missing Crew Member

All personnel will be accounted for at the start and end of the workday. If a worker goes missing, a thorough search of the camp, available transportation vessel and work site will be conducted immediately. If the person cannot be safely located, the Site Supervisor will make an emergency call to the RCMP and report a missing person.

6.4 Person Overboard Emergency

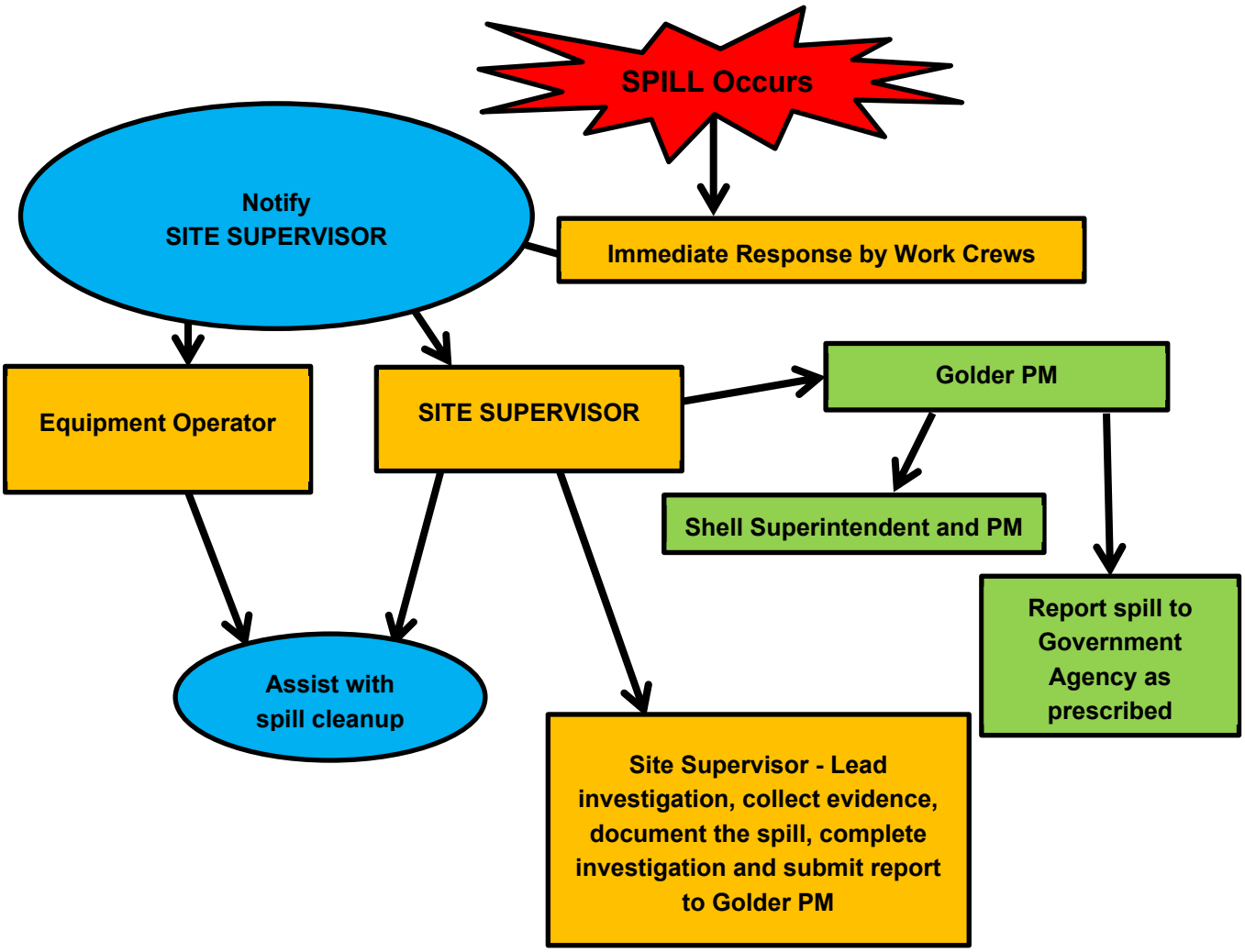
How to respond in the event a person falls overboard from a boat:

- Remain calm,
- Affix the location and maintain visual contact of the victim's location,
- Throw a lifeline e.g., Life ring and rope,
- Recover the person overboard and treat them for cold stress.

6.5 Environmental Spill Response Procedures

If there is an environmental release take the following steps:

- Stop work,
- Ensure safety of all personnel in the work area,
- Identify the material released,
- Report spill to Site Supervisor. The Site Supervisor will report the spill, status and any injuries to the Golder Project Manager,
- Contain the spill (using spill kits), stop the flow and control hazards by eliminating all ignition sources, define safety parameters by setting up cones and barricades if needed,
- Monitor the air at the perimeter of the flagged off area, as necessary,
- Clean up the released material to the extent possible,
- Assess and remediate any suspected residual impacts,
- The Project Manager will report to the Shell Superintendent and PM and to the government agency,
- The Site Supervisor documents the spill. Gathers photos/drawings and evidence for investigation of the incident. Record time and date that it occurred, record type of chemical released, record environment that the spill occurred (water, land air), record size (amount released, area effected) and equipment involved.



6.6 Communication System Interruptions

The main method of communication on-site will be by using two-way handheld radios operating on the same channel for all crews. Interference is not expected to affect two-way radio usage at the Site. Radios are to be charged each day and communication checks to be tested each morning. Defective or broken radios are to be taken out of service and replaced. Land lines (3) Satellite phones (2) and inReach devices (2) necessary for external communication will be tested before work starts on-site and service verified each day. Should all communication systems fail this would result in the immediate stoppage of work until communication services are restored.

6.7 Severe Weather

Weather in the region can change very drastically in a short amount of time. When working during periods where rapid weather changes or inclement weather can be expected, make sure that workers are appropriately equipped with winter or rain gear, warm clothing and a change of clothing as appropriate.

- The Site Supervisor or designate alternate will obtain frequent weather updates throughout the workday and communicate changes so that crews may be prepared to modify or suspend work when bad weather doesn't allow it to be completed safely.
- High winds are common for the region. Conditions will be assessed by the Site Supervisor and sustained wind speed and wind gusts evaluated using an anemometer. The Site Supervisor will evaluate transportation needs between Site and Inuvik and will make the determination on when to travel. Air evacuation by helicopter cannot be provided when there is less than 1 mile of visibility and during darkness.
- If forecasted bad weather requires the evacuation of workers from the work area, the Site Supervisor will coordinate the safe mobilization of the field crew back to safety as indicated below.
- If weather in the area may prevent emergency evacuation of an injured person, the Site Supervisor, with the consultation of the subcontractor and the project management team may decide to suspend high risk work activities until the weather passes.

The Site Supervisor will communicate weather and potential evacuation status with the crew and, considering the weather forecast, time of day and activities taking place (in terms of risk), one of the following decisions will be made:

- Continue work as normal.
- Suspend high hazard activities and wait for weather to improve.
- Suspend all activities and evacuate the work site.

6.8 Wildlife Encounter

If Wildlife is observed, report sighting immediately to the Wildlife Monitor so they can determine threat level and response. If a Wildlife Encounter occurs take the following steps:

- Stop Work.
- Work crew to leave equipment and return to safety of camp via identified safe route if path between equipment and camp is clear.
- Confirm with Wildlife Monitor when safe to return to area.

All bear sightings are to be reported to the local Environment and Natural Resources office. Report a wildlife emergency using the 24-hour emergency wildlife number.

6.9 Workplace Harassment and Violence

Strategies for recognizing and dealing with incidents of harassment and violence in the workplace are outlined within Golder's Harassment and Violence in the Workplace Policy. Acts of harassment and violence are defined within this policy. If personnel encounter aggressive behaviour by another individual, they are to:

- Remain calm;
- Monitor their own non-verbal cues;
- Maintain a safe distance from the aggressor and identify your escape route to safe area;

- Do not make threats or promises;
- Remove themselves from the situation immediately;
- If the situation escalates, call for help using radio or verbally; and
- Contact the Site Supervisor when safe to do so and file an incident report.

The Site Supervisor will report the incident to the Project Manager and involve the Golder HSSE Advisor and HR representative. The incident may be reported to the local authorities depending on the nature of the aggressive act, and arrangements will be made to have the person(s) responsible for the aggressive act to be immediately escorted and permanently removed from the Site.

7.0 HOSPITAL ADDRESS

Hospital Name	Address	Phone	Level of Care Available
Inuvik Regional Hospital	285-289 MacKenzie Rd, NT	867-777-8000	ER 24/7 / Full Care

The closest hospital is the Inuvik Regional Hospital. Transportation from Site to the hospital will be completed via emergency boat unless Air Ambulance is required.

golder.com

Spill Contingency Plan

Spill Contingency Plan

2021 Site Remediation Confirmation and Environmental Site Assessment - Camp Farewell, Niglintgak and Unipkat I-22

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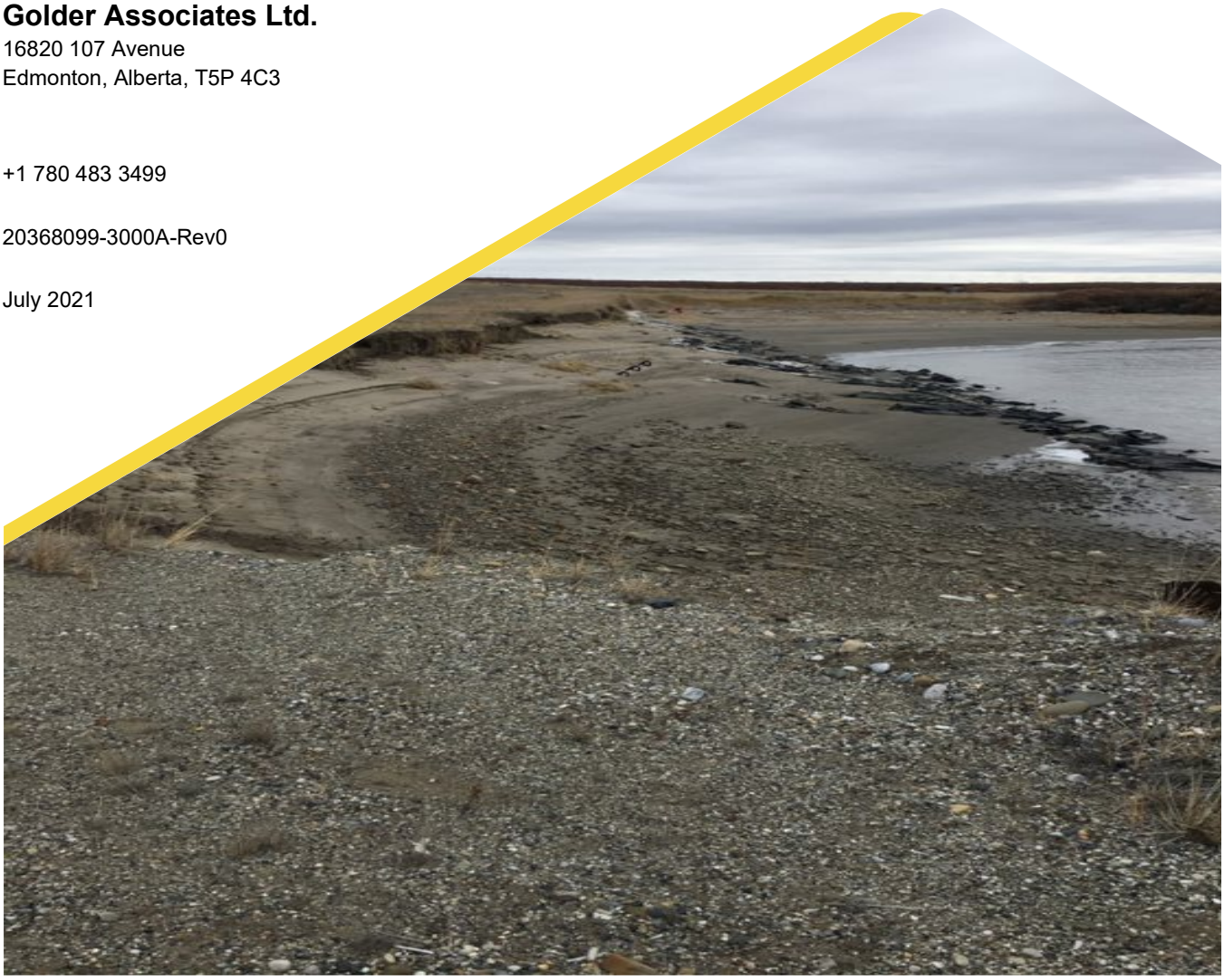

Distribution List

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1.0 INTRODUCTION AND PROJECT DETAILS

Golder Associates Ltd. (Golder) has prepared this Spill Contingency Plan (the Plan) on behalf of Shell Canada Limited (Shell) for the former Camp Farewell (the Site). The purpose of this Plan is to describe the proper responses to several types of spills that may occur during the planned Remediation Confirmation and Environmental Site Assessment of Camp Farewell (the Project).

The Plan will be effective upon its approval and will be implemented at the beginning of the 2021 phase of the Project (i.e., at the end of July 2021). It includes the Spill Response Contact List for relevant organizations and agencies in the Northwest Territories (NT), and the reporting requirements in the event of a chemical, fuel, or waste spill. Paper copies of this Plan will be available on the Site (through the Site Supervisor) and will be posted at several accessible locations. All personnel will have access to paper and digital copies of the Plan. Prior to the commencement of work, the Plan will be distributed to personnel from Shell, Golder, E. Grubens Transport Ltd. (EGT) and their subcontractors. It will be discussed with the entire crew in daily Health and Safety meetings.

Project details are provided in the following sections. Additional details are provided in the technical Scope of Work (SOW) and the Waste Management Plan.

1.1 Site Location and Description

The Camp Farewell site is located at 69°12’30.0’’N latitude and 135°06’04.4’’W longitude on the Mackenzie River withing the Inuvialuit Settlement Region (ISR) on the northeastern bank of the Middle Channel of the Mackenzie River Delta, NWT. The Site is approximately 150 kilometres (km) northwest of Inuvik. The Camp Farewell site will be used a base camp for staging and accommodation in 2021.

The Site covers a land area of approximately 14 hectares (35 acres) within the Kendall Island Bird Sanctuary.

Camp Farewell was constructed in 1970-1971. The Site was operated as a staging and storage location to support Shell’s Mackenzie Delta drilling program. The Site consisted of a self-contained camp, providing electrical and heating services, and facilities for accommodation, meals, fuel storage, equipment handling, water withdrawal, and wastewater storage.

1.2 Project Summary

The objective of the proposed technical SOW is to close select data gaps identified through the review of previous remediation and site assessment programs and through subsequent discussions with Shell. The proposed work will include:

- Horizontal and vertical delineation of petroleum hydrocarbons (PHC) in soil in previously disturbed areas;
- Additional soil sampling for metals, sulphate, and nitrate in impacted areas; and,
- Groundwater sampling for PHC, polycyclic aromatic hydrocarbons (PAH), dissolved metals, and routine potability parameters.

The SOW for the Site consists of the following proposed activities:

- Excavating approximately 177 test pits on the Site to a depth of 1.5 metres below ground surface (mbgs), or deeper as needed;

- Collecting soil samples from the test pits and submitting soil samples for select laboratory analysis of PHC (including benzene, toluene, ethylbenzene and xylenes [BTEX], F1 to F4 hydrocarbon fractions, and forensics), metals, sulphate, and nitrate;
- Completing one round of monitoring and collecting groundwater samples from existing monitoring wells and submitting groundwater samples for select laboratory analysis of PHC, PAH, dissolved metals, and routine potability parameters (pH, electrical conductivity [EC], sodium adsorption ratio [SAR], total alkalinity, hardness, total dissolved solids [TDS], bicarbonate, carbonate, hydroxide, fluoride, chloride, sulphate, calcium, magnesium, sodium, potassium, manganese, nitrate, nitrite, and ionic balance).

The summer 2021 activities also include work at the southern end of Niglintgak Island within the Mackenzie Delta:

- Conducting a site visit to the South End of Niglintgak Island to locate and photograph remaining instrumentation (e.g., benchmarks, thermistors), followed, if possible, by additional site visit(s) to decommission Shell-owned instrumentation.

The summer 2021 activities also include work at the former Unipkat I-22 wellsite within the Arvoknar Channel of the Mackenzie River:

- Collecting samples from the pilings for laboratory analysis; and
- Conducting a survey to document shoreline and pile locations.

2.0 POTENTIAL SPILLS AND THEIR ENVIRONMENTAL IMPACTS

2.1 Diesel Fuel, Lube Oils and Grease

Diesel (and potentially large quantities of lube oils and grease) may be harmful to human health, wildlife and aquatic life. Diesel fuel is not readily biodegradable and has the potential to bioaccumulate in the environment. Runoff into bodies of water will be mitigated using absorbent mats/socks. Diesel burns slowly which reduces the risk to the environment during recovery because a burn can be easier contained.

There will be one 25,000-litre (L) double hulled envirotank with diesel on the barge and a fuel truck at the Site. In a worst-case scenario, the envirotank is punctured or opened and contents seep through and overflow secondary containment into the surrounding water bodies. This would involve up to 25,000 L of diesel. This scenario could cause illness or death to aquatic life and could indirectly affect wildlife feeding from the land and water.

In the case that the fuel truck is punctured and the content leak into the surrounding land, spill kits will be used to absorb and contain the spread of the fuel. This scenario could indirectly affect plant and wildlife feeding from the land.

2.2 Propane

Propane may be harmful to human health, to wildlife and to the surrounding environment. Propane is extremely volatile and flammable and will impact human health and the surrounding environment if leaks are not prevented, recognized or stopped.

There will be up to four 500-gallon tanks at the Site at any given time. In a worst-case scenario, all cylinders are punctured or fail, and contents leak into the surrounding environment and ignite, possibly leading to an explosion. This would involve up to 2,000 gallons (9,092 L) of propane. The site workers would be at immediate risk and serious environmental impacts could result from this scenario. Emergency response drills and daily safety meetings will address this scenario.

2.3 Sewage

Sewage may be harmful to wildlife and humans as it may cause illness. Sewage is biodegradable and will not bioaccumulate in the environment. Sewage will have a minimal effect on marine environment and aquatic life.

There are three 4,000-L combined grey and black (sewage) tanks on the barge servicing the camp. There is also a spacer barge with one 45,000-L tank for storage capacity, if required.

In a worst-case scenario, sewage from the barge camp would enter the river. This would involve up to 57,000 L. This scenario would cause environmental impacts but not result in the endangerment of humans or aquatic life.

2.4 Classification of Dangerous Goods

The waste generator (consignor) is responsible for classifying all dangerous goods that are shipped. Goods classified by the manufacturer will be verified by the contractor on-site. Where the composition of the products has been changed, (e.g., mixtures of hazardous waste) the products may need to be reclassified. The carrier is responsible for ensuring that the documentation matches the package. All vehicles transporting dangerous goods into, or out of the Site will have proper placarding on vehicles. Containers will also be labelled according to the requirements laid out by the Transportation of Dangerous Goods (TDG) Act and Regulations. The site contractor is responsible for completing the shipping document. Personnel transporting dangerous goods must complete transportation of dangerous goods training as outlined in the HSSE Management Plan. Persons ordering and receiving dangerous goods shall ensure that shipping documents are sent by the suppliers where required by the TDG Act and Regulations and shall refuse shipments if not in compliance. Documents must be retained for at least two years.

3.0 SPILL RESPONSE ORGANIZATION

3.1 Regulatory Agencies

The Government of the Northwest Territories (GNWT) Departments of Environment and Natural Resources (ENR) and Lands, and the Office of the Regulator of Oil and Gas Operations (OROGO) are responsible for coordinating regulatory oversight and investigation of hazardous material spills in the NWT. Federal agencies (Crown Indigenous Relations and Northern Affairs Canada [CIRNAC), Environment and Climate Change Canada [ECCC] and Transport Canada) are responsible in accordance with their jurisdiction for spill investigations and cleanup monitoring in the NWT. The Inuvialuit Land Administration is responsible for spills on land in the ISR. The Inuvialuit Water Board (IWB) is responsible for discharges to inland waters and the Canadian Coast Guard is the lead response agency overseeing spills from ships and barges.

3.2 Spill Reporting Procedures

The spill response thresholds for a wide variety of materials, compounds, and liquids are provided in the Spill Contingency Planning and Reporting Regulations under the NWT *Environmental Protection Act* (1988) and are provided in Appendix A. Additional details are included in Section 9.0.

All spills, regardless of quantity, will be reported to the Golder Site Supervisor, the Shell Project Manager and will be reported in the IWB Annual Report. All spills, regardless of quantity, will be reported to the IWB Representative and the Northwest Territories/Nunavut (NT/NU) Spill Line where the accidental release:

- is near or into a water body;
- is near or into a designated sensitive environment or sensitive wildlife habitat;
- poses an imminent threat to human health or safety; or

- poses an imminent threat to a listed species at risk or its critical habitat.

If applicable, a detailed report including GPS location(s) will be submitted to the applicable regulatory agency no later than 30 days after the initial report of any spill occurrence.

Table 1 indicates the current spill response contact list and Figure A depicts a flow chart for spill response. The Golder Site Supervisor (and Alternate) will be responsible for activating the Plan.

Table 1: Spill Response Contact List

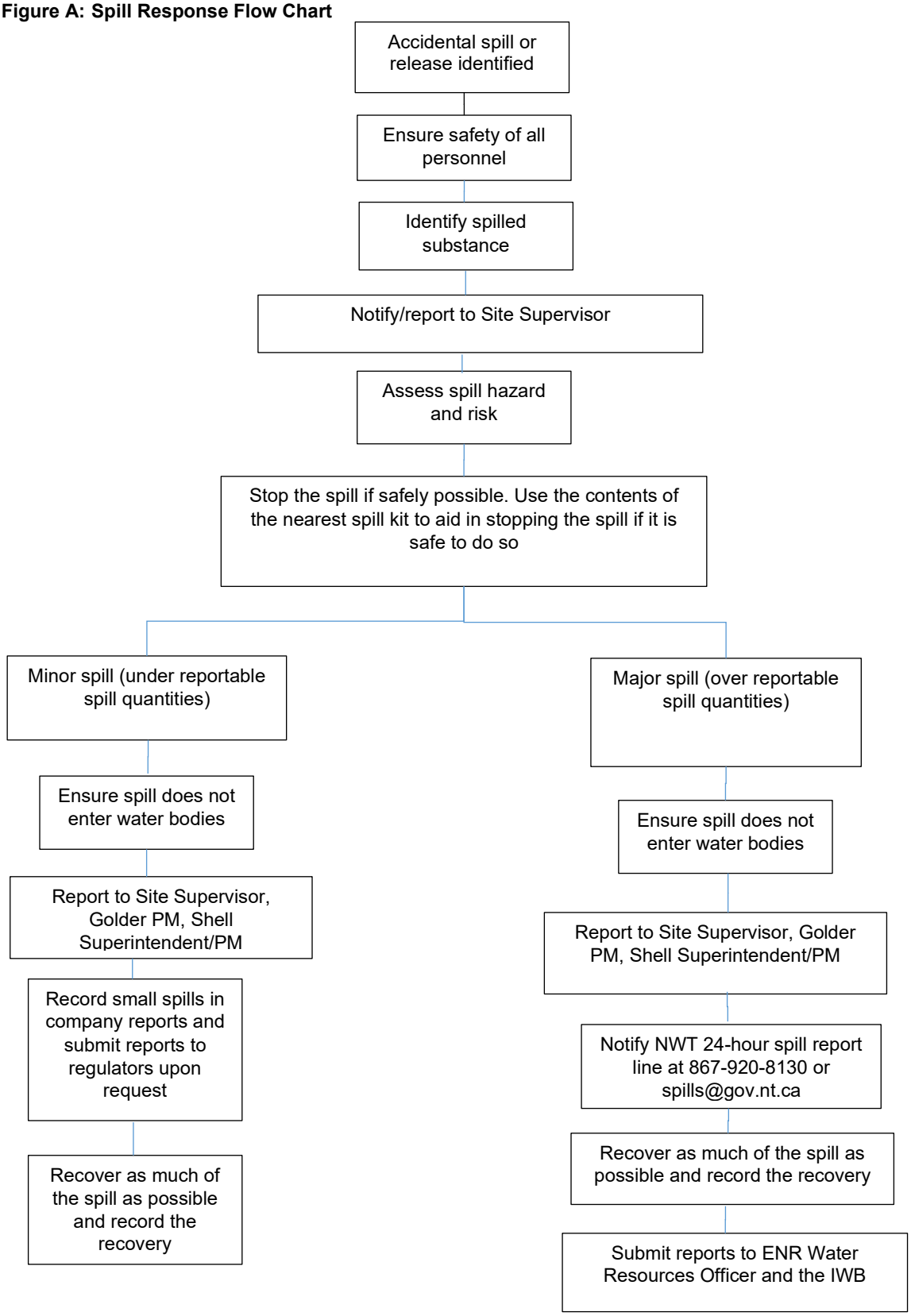
Organization	Contact	Phone Number
Northwest Territories 24-Hour Spill Report Line	N/A	867-920-8130
Inuvialuit Water Board	N/A	867-678-2942
Government of the Northwest Territories Environment Protection Officer, Inuvik	Alicia McRae	867-678-6653
Government of the Northwest Territories Environment and Natural Resources, Inuvik (Water Resources Officer)	Lloyd Gruben	867-678-6676
Canadian Coast Guard 24-Hour Spill Reporting Line for Arctic Waters	N/A	1-800-265-0237
Golder Site Supervisor	Peter Tan	780-868-6128
Golder Project Manager	Aurélie Bellavance	403-816-0245
Golder Project Manager Alternate	Punchalee Clair	902-221-6875
Golder Health and Safety Advisor	Anita L'Arrivee	780-218-3752
Shell Superintendent	Kyle Thompson	403-691-3174 ext. 3174
Shell Project Manager	Christopher Boyd	403-691-2855
Shell Media and Public Enquiries	N/A	1-800-661-1600

A variety of communications equipment will be available at the Site for use during the Project. Table 2 summarizes the communications equipment for the Project.

Table 2: Communications Equipment for the Project

Project Component	Company	Equipment (Number)
Summer Field Work	Golder	Satellite phone (2) / cell phone (2) / inReach device (2) / handheld radios (2)
	EGT and Subcontractors	Cab-mounted radios (2) / cell phones (3) / handheld radios (3)
	Total	Satellite phone (2) / cab-mounted radios (2) / cell phones (5) / inReach device (2) / handheld radios (5)

Figure A: Spill Response Flow Chart



4.0 PREVENTATIVE MEASURES

The following section provides details on the existing preventative measures that are in place for the Project regarding fuel storage, secondary containment, fuel handling procedures, and related activities that have the potential to result in a spill event.

Spill kits will be located wherever fuel is stored or used. Refer further to Section 7.1.1 for details on spill kit contents. Portable drip trays and appropriately sized fuel transfer hoses will be used when refuelling motorized equipment, to avoid any leaks/drips onto the land. Vehicles will be refuelled by filling a fuel truck at the barge and transporting it to the equipment at the work sites. Established procedures and drip trays will be used during refuelling operations to prevent any spills.

The Golder Site Supervisor or designated fuel monitor will conduct daily visual inspections to check for leaks or damage to any fuel storage facilities. Regular maintenance and oil checks of all motorized equipment will also be undertaken to avoid preventable leaks.

5.0 SPILL RESPONSE ACTIONS

5.1 Initial Spill Response Actions

- ensure safety of all personnel;
- if needed, evacuate or divert workers from the spill area;
- minimize vehicular traffic as much as possible at the spill site;
- mark, flag and ribbon-off any area that is deemed hazardous to humans or wildlife;
- monitor the air at the perimeter of the flagged off area, as necessary;
- use personal protective equipment (PPE) until concentrations are determined to be within acceptable levels;
- fence off the spill site to prevent wildlife from entering;
- assess spill hazards and risks;
- identify the leak location along with the type of product/material spilled, the duration and the volume released;
- evaluate ground and weather conditions to assess the risk to environment (i.e., rain, gravel, sand, water body, muskeg, etc.);
- remove all sources of ignition;
- stop the spill if safely possible (e.g., shut off pump, replace cap, tip drum upwards, patch leaking hole). Use the contents of the nearest spill kit to aid in stopping the spill if it is safe to do so;
- contain the spill by using contents of spill kits. Place sorbent materials on the spill or dig a berm/bell hole to contain the spill; and
- relay information to internal company contacts, government agencies and, if required, the designated communications representative.

5.2 Spill Assessment (Land)

Land spills will spread outward from the initial spill point toward lower-lying areas. Penetration downward into the soil will also occur at a rate that is dependent on the soil type and the nature of the product spilled.

Following the initial hazard assessment and development of a site safety plan, detailed information on the location and effects of the spill on the land will be collected. The spill boundary will be identified with the appropriate equipment, including:

- PPE;
- gas detection monitors;
- compass;
- measuring device (i.e., GPS);
- shovel;
- Quantabs or conductivity meter for produced water or emulsion spills;
- hoe, drill or sampling equipment if subsurface contamination is suspected; and
- camera.

Use a handheld air monitor to assess the potential of flammable vapours in the area. Produce a sketch of the spill and take appropriate photographs. Next, identify land uses in areas affected by the spill. Look at whether the spill affects private land owners, public land (green areas, parks), dispositions (pipelines, utilities, roads, facilities, trappers, etc.), or sensitive areas (protected areas, wildlife habitat, archaeological resources etc.).

Based on the land use in the spilled area, evaluate site for wildlife, and determine the approval requirements for accessing the spill site. Reporting details are provided in Section 9. It is important to note the terrain, soil types, characteristics and conditions, as well as the vegetation types on the Site. Surface runoff patterns, erosion potential, moisture levels and movement of the water table can all impact the severity of the spill and the way in which it can be contained so it is imperative to take note of all of these observations before proceeding with cleanup. When the previous considerations have been addressed, the next course of action is to determine the equipment resources that are required to control the spill. The initial assessment will impact what equipment will be used, how it will be transported to the spill site and how it will improve or create access to the spill.

5.3 Spill Assessment (Water)

Begin by assessing the characteristics of the affected watercourse including width, depth and velocity. Shoreline characteristics and sensitivities also need to be taken into consideration. The degree of impact, degree of sensitivity (ecological, cultural, human use, etc.) and the physical limitations can all affect the way in which a spill will be contained. Note that there are no water bodies at the Site. Therefore, this section focuses on a spill potentially reaching the Mackenzie River.

In the absence of any current or wind, a spill on water bodies will spread out in all directions from the site of the spill until a uniform stable thickness is reached. If wind and/or current are present, the spill will move with the wind or current until it reaches the shoreline.

Wave action in the water body may also affect the spill causing oil-in-water or water-in-oil emulsions to form, making recovery and cleanup efforts more difficult.

The Site Supervisor will attempt to contain the spill to as small an area as possible and the water body near the spill source. Dispersion of the spill over a large area on the water body could cause widespread impacts when the

spill reaches the shore. If the spill can be contained on the water body, the spilled material is moved toward shore for recovery.

Containment options for spills on water bodies may include the use a containment boom to surround the spill. If the area that may be impinged by the spilled materials is environmentally sensitive, appropriate shoreline protection measures may be implemented.

5.4 First Aid

First aid measures will vary based on the type of materials involved in the spill. It is recommended that personnel follow all chemical-specific instructions or call the Northwest Territories 24-Hour Spill Reporting Line for assistance. Refer to the chemical-specific Safety Data Sheets (SDS) if skin contact, eye contact, inhalation, or ingestion should occur and follow the first aid procedure on the SDS. Information on poison control for hazardous chemicals ingested can be obtained by calling the Inuvik Regional Hospital at (867) 777-8000 or Tuktoyaktuk Regional Health Services at (867) 977-2321.

6.0 RESPONSE ACTIONS BY SPILL TYPE

6.1 Chemical Spills

The action plan laid out here is generally applicable to any chemical spill that the Project may encounter, but some chemicals may have special handling and disposal requirements. Refer to WHMIS labels and SDSs for chemical-specific information.

6.2 Initial Action

In the event of a chemical spill, the following measures will be taken immediately:

- determine the type of chemical;
- evacuate unnecessary personnel;
- ventilate area of leak or spill (opening all doors and windows);
- wear PPE (gloves, safety glasses, impervious material long-sleeved shirt/coat);
- if available, wear respirator/self-contained breathing apparatus (SCBA);
- remove all other chemicals from the area if safe to do so;
- for small spills, dilute with water, mop or wipe up and place in proper container;
- for large spills, contain by diking (soil/dry sand/kitty litter), absorb with inert material (soil/dry sand/kitty litter) and place in chemical waste container;
- after mopping up chemical, wash area well with soap and water, mopping into spill container and not to the ground;
- do not use combustible materials (i.e., sawdust or cardboard);
- contain runoff from spill clean-up; and
- notify the Northwest Territories 24-Hour Spill Report Line at (867) 920-8130 to receive disposal information.

6.2.1 Follow-Up Action

After the spill has been cleaned up, other reporting, disposal, and follow-up activities may be required. The following measures will be taken if applicable:

- dispose of chemical, inert absorbent material, and mop up water as directed by Spill Report Line personnel and applicable regulators;
- arrange for repair or replacement of chemical containers, pipelines and equipment, if damaged or leaking; and
- submit a detailed report on the occurrence to the applicable regulatory agency within 30 days of reporting the spill event.

6.3 Petroleum Product and Antifreeze Product Spills

Petroleum product spills may range from minor spills during operations such as refuelling, to constant leakage from pipelines in need of repair, to major spills causing contaminated soil/water issues.

Depending on the location of the spill, a petroleum product spill may result in contaminated soil or water. The contaminated material must be cleaned up and removed for disposal along with the spilled petroleum product.

Antifreeze or engine coolant products are used in automotive engines and generally consist of ethylene glycol or propylene glycol mixed with distilled water; of the two, propylene glycol is significantly less toxic.

Petroleum and antifreeze product spills can be handled in the same manner. Refer to WHMIS labels and SDSs for chemical-specific information.

6.3.1 Initial Action

In the event of a petroleum or antifreeze product spill, the following measures will be taken immediately:

- shut off ignition sources, if safe to do so;
- identify the spilled material and locate the source;
- stop the spill at the source, if safe to do so;
- take actions to contain/clean up spilled material;
- record relevant information for reporting including the quantity of material spilled, product type, location, date, weather, and other relevant information; and
- notify the Northwest Territories 24-Hour Spill Report Line at (867) 920-8130.

6.3.2 Follow-Up Action

After the initial clean-up and reporting procedures, other activities may be required such as reporting and disposal. The following measures will be taken if applicable:

- collect soil samples for laboratory analysis to determine that spill has been cleaned up;
- dispose of soil off-site;
- arrange for repair or replacement of petroleum product containers, pipelines and equipment, if damaged or leaking;

- submit a detailed report on the occurrence to the relevant regulatory agency within 30 days of reporting the event; and
- for large spills, install wells to monitor groundwater for signs of contamination. Determine the level of final clean-up in consultation with an Aboriginal Affairs and Northern Development Canada inspector.

6.4 Sewage

The transfer of sewage from the barge to the Inuvik sewage lagoon at the end of the season will be undertaken in a manner that will prevent spills. In the event of a spill the area of impact will be minimized and then cleaned up.

6.4.1 Preventative Action

- personnel undertaking sewage transfers will be properly trained and aware of the potential concerns with this activity;
- all hoses and connections will be checked for condition and presence of potential leaks;
- the pump operator will remain at the pump for the duration of the transfer;
- the pump operator will have direct visual contact with the line and the receiving tank or will have constant radio contract with a spotter;
- a spotter will walk the line during the transfer looking for any leaks or signs of potential failure (bulges, etc.);
- if the spotter identifies any concerns, the pump will be shut down and the issue addressed;
- drip trays or secondary containment will be used to prevent drips from entering the environment;
- once the transfer is completed, the hoses will be emptied as much as possible. Then they will be carefully removed and handled to keep any remaining contents in the hose; and
- All connections, lids and caps will be made secure.

6.4.2 Initial Action

In the event of a sewage spill, the following measures will be taken immediately:

- shut off ignition sources if methane gas is present (when safe to do so);
- identify the spilled material and locate the source;
- stop the spill at the source, if safe to do so;
- take actions to contain/clean up spilled material;
- record relevant information for reporting including the quantity of material spilled, product type, location, date, weather, and other relevant information; and
- if spill volume is above the recordable quantity (as per Appendix A), notify the Northwest Territories 24-Hour Spill Report Line at (867) 920-8130.

6.4.3 Follow-Up Action

After the initial clean-up and reporting procedures, other activities may be required such as reporting and disposal. The following measures will be taken if applicable:

- dispose of sewage off-site in an appropriate manner; and
- submit a detailed report (if required) on the occurrence to the applicable regulatory agency within 30 days of reporting the event.

7.0 RESOURCE INVENTORY

The following section provides details on the resources that will be available on the Site to aid in spill response. The procedures for handling, transporting and disposing of spill-related wastes are outlined in the Waste Management Plan. The Waste Management Plan will be implemented during all Project activities and its contents will be included in daily Health and Safety meetings with all staff and contractors.

7.1 On-Site Resources

A minimum of five spill kits will be located throughout the Site with contents described below. In addition, earth moving and other equipment is located at the Site at all times to assist with spill response (as listed below). Spill response equipment will be located inside all heavy equipment and vehicles used at the Site. Additional spill response equipment will be located at the fuel transfer location. Spill kits will be replenished throughout the program as required.

7.1.1 Spill Kit Contents

- 4 Tyvek splash suits;
- 4 pairs of chemical master gloves;
- 10 large bags with ties for temporary use;
- 2 oil only booms (5” x 10');
- 2 oil only floating booms (5” x 10');
- 50 oil only mats (16” x 20”);
- 5 sorbent socks;
- 10 sorbent pads;
- 2 large tarps;
- 1 roll of duct tape;
- 1 utility knife;
- 1 field notebook and pencil;
- 1 rake;
- 1 pick axe;
- 3 aluminum scoop shovels; and
- 1 instruction binder.

7.1.2 Equipment Specific to Chemical Spills

A spill kit will be available at the Site to aid in the event of a chemical spill. The kit will include:

- heavy-duty gloves;
- safety glasses;
- mop/wringer/spill squeegee;
- shovel/broom/dustpan;
- chemical spill container with sealable lid; and
- sand/kitty litter (absorbent, non-flammable material).

Alternatively, a 50-gallon Universal Sorbent Spill Kit can be provided, which includes:

- 10 socks (3" x 48");
- 4 socks (3" x 10');
- 50 pads (15" x 17");
- 4 pillows;
- 50 wipers;
- 5 disposal bags and ties;
- 5 tamperproof seals;
- 2 pairs of nitrile gloves; and
- 1 emergency response guidebook.

7.1.3 Equipment Specific to Fuel Spills

One spill kit will be on-hand at the fuel storage area. The kit will include:

- heavy-duty gloves;
- safety glasses;
- mop/wringer/spill squeegee;
- shovel/broom/dustpan;
- chemical spill container with sealable lid; and
- sand/kitty litter (absorbent, non-flammable material).

Alternatively, a 50-gallon Universal Sorbent Spill Kit can be provided with contents described in Section 7.1.2, above.

7.1.4 Equipment Specific to Sewage Transfer Spills

Two spill kits will be on-hand in the vicinity of the sewage transfer with one kit near each end of the transfer. The kits will include:

- heavy-duty gloves;

- safety glasses;
- mop/wringer/spill squeegee;
- shovel/broom/dustpan; and
- sand/kitty litter (absorbent, non-flammable material).

Alternatively, a 50-gallon Universal Sorbent Spill Kit can be provided with contents described in Section 7.1.2, above.

7.1.5 Earth Moving and Other Equipment

It is anticipated that the following equipment will be available on the Site:

- 1 small loader;
- 1 excavator;
- 1 emergency boat;
- fuel transfer hoses with pumps; and
- tool kit including hack saw, hammer, screwdrivers, etc.

7.2 Off-Site Resources

Spill response contact numbers are provided in Table A above. The Project may align itself with the Mackenzie Delta Spill Response Corporation - MDSRC. The MDSRC is a non-profit, co-operatively funded organization consisting of oil and gas companies operating within the Mackenzie River Delta and the Mackenzie Valley of the NT.

The MDSRC was formed in 2002. Its geographic area of responsibility is the Mackenzie River Delta of the NT - from lands north of Inuvik and Aklavik extending to the shores of the Beaufort Sea. If registered, the Project would be assigned a ‘login’ and would have direct access to all available on-site and off-site equipment held by the organization.

8.0 SPILL RESPONSE TRAINING

The Project is committed to ensuring that all personnel involved in spill response activities fully understand their roles and the roles of others with whom they may interact during an incident. To meet this commitment and to ensure personnel respond effectively, training activities will include:

8.1 Orientation

- provide all site personnel with an orientation of the Project’s Spill Contingency Plan and its applicable elements;
- discuss and clarify bridging between Golder’s emergency response procedures and this Project Spill Contingency Plan, where applicable;
- utilize summary wall charts outlining key responsibilities and lines of communication for quick reference purposes; and

- devote a portion of scheduled safety and/or staff meetings to discussion of spill response issues on an ongoing basis.

8.2 Specialized Spill Response Training

- make available (through Golder's Site Supervisor) all required training;
- ensure personnel working at the Site comply with the Project's safety training requirements (e.g., First Aid/CPR, Workplace Hazardous Materials Information System [WHMIS], Transportation of Dangerous Goods, Fire Extinguisher Safety, etc.).

8.3 Spill Response Drills

Golder will conduct a minimum one spill response drill to ensure the readiness of the project team. The IWB will be notified and a summary included in the Annual Report.

8.4 External Orientation

As appropriate, brief and familiarize all external groups or agencies having a role in this Plan and define their specific responsibilities under the Plan.

8.5 Training Records

The Golder Site Supervisor will be tracking all training requirements and compliance utilizing a spreadsheet. Training records will be reviewed by Golder Site Supervisor prior to mobilization.

9.0 REPORTING REQUIREMENTS

As outlined in Section 3.2, all spills, regardless of quantity, will be reported to the Site Supervisor and the Shell Project Manager. Spills to be reported include spills that have already occurred, or potential spills that are about to occur. Spills must be reported if the amount is greater than or equal to the amount listed in the spill response thresholds (Appendix A). The spill response thresholds for a wide variety of materials, compounds, and liquids are provided by the Spill Contingency Planning and Reporting Regulations under the *Environmental Protection Act* (1988) and are provided in Appendix A.

In accordance with the Spill Contingency Planning and Reporting Regulations, any reportable spill will be reported immediately to the 24-Hour Spill Report Line at (867) 920-8130. The following details will be provided (if possible):

- date and time of spill;
- location of spill;
- direction spill is moving;
- name and phone number of a contact person close to the location of spill;
- type and quantity of contaminant spilled and cause of spill;
- whether spill is continuing or has been stopped;
- description of existing containment;
- actions taken to contain, recover, clean-up and dispose of the contaminant; and

- name and phone number of the person reporting the spill and the person in charge or control of contaminants at time of spill.

A detailed report on the occurrence must also be submitted within 30 days of the event. An NT/NU Spill Report Form is included at the back of this Plan (Appendix B).

In the very unlikely event that the public may be affected by a spill, the Golder Project Manager will inform Shell of the nature and size of the spill.

10.0 SAFETY DATA SHEETS

SDSs have been provided in Appendix C for the materials outlined in Section 2. It should be noted that the documents in Appendix C still use the previous name “Material Safety Data Sheets” (MSDS) but are referred to by their current official name (Safety Data Sheets [SDSs]). These SDSs are presented for informational purposes only and should not be used for WHMIS purposes. SDSs from the actual vendors will be acquired and maintained for WHMIS compliance and, if applicable, will replace the sheets in this Plan.

The list of contaminants presented above is not intended to be a comprehensive list of potential contaminants the Project might face but is merely to present the common contaminants that may be encountered on a regular basis.

APPENDIX A

NWT Spill Response Thresholds

Appendix A:

Immediately Reportable Spill Quantities

Substance for NWT 24 hour Spill Line	Immediately Reportable Quantities
Explosives Compressed gas (toxic/corrosive) Infectious substance Sewage and Wastewater (unless otherwise authorized) Radioactive materials Unknown substance	Any amount
Compressed gas (Flammable) Compressed gas (Non-corrosive, non-flammable)	Any amount of gas from containers with a capacity grater than 100L
Flammable liquid	≥100 L
Flammable solid Substances liable to spontaneous combustion Water reactant substances	≥ 25 kg
Oxidizing substances	≥ 50 L or 50 kg
Organic peroxides Environmentally hazardous substances intended for disposal	≥1 L or 1 kg
Toxic substances	≥ 5 L or 5 kg
Corrosive substances Miscellaneous products, substances or organisms	≥ 5 L or 5 kg
PCB mixtures of 5 or more ppm	≥ 0.5 L or 0.5 kg
Other contaminants--for example, crude oil, drilling fluid, produced water, waste or spent chemicals, used or waste oil, vehicle fluids, wastewater.	≥ 100 L or 100 kg
Sour natural gas (i.e., contains H_2S) Sweet natural gas	Uncontrolled release or sustained flow of 10 minutes or more
Flammable liquid Vehicle fluid	≥ 20 L When released on a frozen water body that is being used as a working surface

In addition, all releases of harmful substances, regardless of quantity, are to be reported to the NWT spill line if the release is near or into a water body, is near or into a designated sensitive environment or habitat, pose an imminent threat to human health or safety, or pose an imminent threat to a listed species at risk or its critical habitat.

APPENDIX B

NT/NU Spill Report Form

NT-NU SPILL REPORT

OIL, GASOLINE, CHEMICALS AND OTHER HAZARDOUS MATERIALS

NT-NU 24-HOUR SPILL REPORT LINE
Tel: (867) 920-8130 • Fax: (867) 873-6924 • Email: spills@gov.nt.ca

REPORT LINE USE ONLY

A	Report Date: MM DD YY	Report Time:	☐ Original Spill Report **OR** ☐ Update # _____ to the Original Spill Report	**Report Number:**
B	Occurrence Date: MM DD YY	Occurrence Time:		
C	Land Use Permit Number (if applicable):		Water Licence Number (if applicable):	
D	Geographic Place Name or Distance and Direction from the Named Location:		Region: ☐ NT ☐ Nunavut ☐ Adjacent Jurisdiction or Ocean	
E	Latitude: _____ Degrees _____ Minutes _____ Seconds		Longitude: _____ Degrees _____ Minutes _____ Seconds	
F	Responsible Party or Vessel Name:		Responsible Party Address or Office Location:	
G	Any Contractor Involved:		Contractor Address or Office Location:	
H	Product Spilled: ☐ Potential Spill	Quantity in Litres, Kilograms or Cubic Metres:	U.N. Number:	
I	Spill Source:	Spill Cause:	Area of Contamination in Square Metres:	
J	Factors Affecting Spill or Recovery:	Describe Any Assistance Required:	Hazards to Persons, Property or Environment:	
K	Additional Information, Comments, Actions Proposed or Taken to Contain, Recover or Dispose of Spilled Product and Contaminated Materials:			

L	Reported to Spill Line by:	Position:	Employer:	Location Calling From:	Telephone:
M	Any Alternate Contact:	Position:	Employer:	Alternate Contact Location:	Alternate Telephone:

REPORT LINE USE ONLY

N	Received at Spill Line by:	Position:	Employer:	Location Called:	Report Line Number:

Lead Agency: ☐ EC ☐ CCG/TCMSS ☐ GNWT ☐ GN ☐ ILA ☐ AANDC ☐ NEB ☐ Other: _____

Significance: ☐ Minor ☐ Major ☐ Unknown

File Status: ☐ Open ☐ Closed

Agency:	**Contact Name:**	**Contact Time:**	**Remarks:**
Lead Agency:			
First Support Agency:			
Second Support Agency:			
Third Support Agency:			

APPENDIX C

Safety Data Sheets

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name	:	DIESEL FUEL
Synonyms	:	Seasonal Diesel, #1 Diesel, #2 Heating Oil, #1 Heating Oil, D50, Arctic Diesel, Farm Diesel, Marine Diesel, Low Sulphur Diesel, LSD, Ultra Low Sulphur Diesel, ULSD, Mining Diesel, Naval Distillate, Dyed Diesel, Marked Diesel, Coloured Diesel, Furnace special, Biodiesel blend, B1, B2, B5, Diesel Low Cloud (LC), Marine Gas Oil
Product code	:	101802, 100107, 100668, 100658, 100911, 100663, 100652, 100460, 100065, 101796, 101793, 101795, 101792, 101794, 101791, 100768, 100643, 100642, 100103, 101798, 101800, 101797, 101788, 101789, 101787, 102531, 100734, 100733, 100640, 100997, 100995, 100732, 100731, 100994
Manufacturer or supplier's details		Petro-Canada P.O. Box 2844, 150 - 6th Avenue South-West Calgary Alberta T2P 3E3 Canada
Emergency telephone number		Suncor Energy: +1 403-296-3000; Poison Control Centre: Consult local telephone directory for emergency number(s).

Recommended use of the chemical and restrictions on use

Recommended use	:	Diesel fuels are distillate fuels suitable for use in high and medium speed internal combustion engines of the compression ignition type. Mining diesels, marine diesels, MDO and naval distillates may have a higher flash point requirement.
Prepared by	:	Product Safety: +1 905-804-4752

SECTION 2. HAZARDS IDENTIFICATION

Emergency Overview

Appearance	Bright oily liquid.
Colour	Clear to yellow (This product may be dyed red for taxation purposes).
Odour	Mild petroleum oil like.
Hazard Summary	Combustible liquid. May cause cancer. Irritating to eyes and skin.

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Potential Health Effects

Primary Routes of Entry	:	Eye contact Ingestion Inhalation Skin contact Skin Absorption
Target Organs	:	Skin Eyes Respiratory Tract
Inhalation	:	May cause respiratory tract irritation. Inhalation may cause central nervous system effects. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness.
Skin	:	Causes skin irritation.
Eyes	:	Causes eye irritation.
Ingestion	:	Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea. Aspiration hazard if swallowed - can enter lungs and cause damage.
Aggravated Medical Condition	:	None known.

Carcinogenicity:

IARC	No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
ACGIH	No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Hazardous components

Chemical Name	CAS-No.	Concentration (%)
kerosine (petroleum), hydrodesulfurized	64742-81-0	70 - 100 %
kerosine (petroleum)	8008-20-6	
fuels, diesel	68334-30-5	
fuel oil no. 2	68476-30-2	
Alkanes, C10-20-branched and linear	928771-01-1	0 - 25 %
Soybean oil, Methyl ester	67784-80-9	0 - 5 %
Rape oil, Methyl ester	73891-99-3	

Fatty acids, tallow, Methyl esters	61788-61-2	

SECTION 4. FIRST AID MEASURES

If inhaled	:	Move to fresh air. Artificial respiration and/or oxygen may be necessary. Seek medical advice.
In case of skin contact	:	In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognized skin cleanser. Wash clothing before reuse. Seek medical advice.
In case of eye contact	:	Remove contact lenses. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Obtain medical attention.
If swallowed	:	Rinse mouth with water. DO NOT induce vomiting unless directed to do so by a physician or poison control center. Never give anything by mouth to an unconscious person. Seek medical advice.
Most important symptoms and effects, both acute and delayed	:	First aider needs to protect himself.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media	:	Dry chemical Carbon dioxide (CO2) Water fog. Foam
Unsuitable extinguishing media	:	Do NOT use water jet.
Specific hazards during firefighting	:	Cool closed containers exposed to fire with water spray.
Hazardous combustion products	:	Carbon oxides (CO, CO2), nitrogen oxides (NOx), sulphur oxides (SOx), sulphur compounds (H2S), smoke and irritating vapours as products of incomplete combustion.
Further information	:	Prevent fire extinguishing water from contaminating surface water or the ground water system.
Special protective equipment for firefighters	:	Wear self-contained breathing apparatus for firefighting if necessary.

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SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	:	Use personal protective equipment. Ensure adequate ventilation. Evacuate personnel to safe areas. Material can create slippery conditions.
Environmental precautions	:	If the product contaminates rivers and lakes or drains inform respective authorities.
Methods and materials for containment and cleaning up	:	Prevent further leakage or spillage if safe to do so. Remove all sources of ignition. Soak up with inert absorbent material. Non-sparking tools should be used. Ensure adequate ventilation. Contact the proper local authorities.

SECTION 7. HANDLING AND STORAGE

Advice on safe handling	:	For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. Use only with adequate ventilation. In case of insufficient ventilation, wear suitable respiratory equipment. Avoid spark promoters. Ground/bond container and equipment. These alone may be insufficient to remove static electricity. Avoid contact with skin, eyes and clothing. Do not ingest. Keep away from heat and sources of ignition. Keep container closed when not in use.
Conditions for safe storage	:	Store in original container. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Keep in a dry, cool and well-ventilated place. Keep in properly labelled containers. To maintain product quality, do not store in heat or direct sunlight.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
kerosine (petroleum),	64742-81-0	TWA	200 mg/m3	ACGIH

hydrodesulfurized			(As total hydrocarbon vapour)	
		TWA	200 mg/m3 (As total hydrocarbon vapour)	ACGIH
		TWA	200 mg/m3 (As total hydrocarbon vapour)	ACGIH
kerosine (petroleum)	8008-20-6	TWA	200 mg/m3 (As total hydrocarbon vapour)	CA BC OEL

Engineering measures : Use only in well-ventilated areas.
Ensure that eyewash station and safety shower are proximal to the work-station location.

Personal protective equipment

Respiratory protection : Use respiratory protection unless adequate local exhaust ventilation is provided or exposure assessment demonstrates that exposures are within recommended exposure guidelines. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Filter type : organic vapour cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. Protection provided by air-purifying respirators is limited. Use a positive-pressure, air-supplied respirator if there is any potential for uncontrolled release, exposure levels are unknown, or any other circumstances where air-purifying respirators may not provide adequate protection.

Hand protection

Material : neoprene, nitrile, polyvinyl alcohol (PVA), Viton(R). Consult your PPE provider for breakthrough times and the specific glove that is best for you based on your use patterns. It should be realized that eventually any material regardless of their imperviousness, will get permeated by chemicals. Therefore, protective gloves should be regularly checked for wear and tear. At the first signs of hardening and cracks, they should be changed.

Remarks : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

Eye protection : Wear face-shield and protective suit for abnormal processing problems.

Skin and body protection : Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to

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the specific work-place.

Protective measures : Wash contaminated clothing before re-use.

Hygiene measures : Remove and wash contaminated clothing and gloves, including the inside, before re-use.
Wash face, hands and any exposed skin thoroughly after handling.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: Bright oily liquid.
Colour	: Clear to yellow (This product may be dyed red for taxation purposes).
Odour	: Mild petroleum oil like.
Odour Threshold	: No data available
pH	: No data available
Pour point	: No data available
Boiling point/boiling range	: 150 - 371 °C (302 - 700 °F)
Flash point	: > 40 °C (104 °F) Method: closed cup
Auto-Ignition Temperature	: 225 °C (437 °F)
Evaporation rate	: No data available
Flammability	: Flammable in presence of open flames, sparks and heat. Vapours are heavier than air and may travel considerable distance to sources of ignition and flash back. This product can accumulate static charge and ignite.
Upper explosion limit	: 6 %(V)
Lower explosion limit	: 0.7 %(V)
Vapour pressure	: 7.5 mmHg (20 °C / 68 °F)
Relative vapour density	: 4.5
Relative density	: 0.8 - 0.88
Solubility(ies)	
Water solubility	: insoluble
Partition coefficient: n-octanol/water	: No data available
Viscosity	
Viscosity, kinematic	: 1.3 - 4.1 cSt (40 °C / 104 °F)

Explosive properties : Do not pressurise, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Runoff to sewer may create fire or explosion hazard.

SECTION 10. STABILITY AND REACTIVITY

Possibility of hazardous reactions : Hazardous polymerisation does not occur. Stable under normal conditions.

Conditions to avoid : Extremes of temperature and direct sunlight.

Incompatible materials : Reactive with oxidising agents and acids.

Hazardous decomposition products : May release COx, NOx, SOx, H2S, smoke and irritating vapours when heated to decomposition.

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure : Eye contact
Ingestion
Inhalation
Skin contact
Skin Absorption

Acute toxicity

Product:

Acute oral toxicity : Remarks: No data available

Acute inhalation toxicity : Remarks: No data available

Acute dermal toxicity : Remarks: No data available

Components:

kerosine (petroleum), hydrodesulfurized:

Acute oral toxicity : LD50 Rat: > 5,000 mg/kg,

Acute inhalation toxicity : LC50 Rat: > 5.2 mg/l
Exposure time: 4 hrs
Test atmosphere: dust/mist

Acute dermal toxicity : LD50 Rabbit: > 2,000 mg/kg,

kerosine (petroleum):

Acute oral toxicity : LD50 Rat: > 5,000 mg/kg,

Acute inhalation toxicity : LC50 Rat: > 5 mg/l

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Exposure time: 4 h
Test atmosphere: dust/mist

Acute dermal toxicity : LD50 Rabbit: > 2,000 mg/kg,

fuels, diesel:

Acute oral toxicity : LD50 Rat: 7,500 mg/kg,

Acute dermal toxicity : LD50 Mouse: 24,500 mg/kg,

fuel oil no. 2:

Acute oral toxicity : LD50 Rat: 12,000 mg/kg,

Acute inhalation toxicity : LC50 Rat: 4.1 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist

Skin corrosion/irritation

Product:

Remarks: No data available

Serious eye damage/eye irritation

Product:

Remarks: No data available

Respiratory or skin sensitisation

No data available

Germ cell mutagenicity

No data available

Carcinogenicity

No data available

Reproductive toxicity

No data available

STOT - single exposure

No data available

STOT - repeated exposure

No data available

Aspiration toxicity

No data available

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Product:

Toxicity to fish	:	Remarks: No data available
Toxicity to daphnia and other aquatic invertebrates	:	Remarks: No data available
Toxicity to algae	:	Remarks: No data available
Toxicity to bacteria	:	Remarks: No data available

Persistence and degradability

Product:

Biodegradability	:	Remarks: No data available

Bioaccumulative potential

No data available

Mobility in soil

No data available

Other adverse effects

No data available

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues	:	The product should not be allowed to enter drains, water courses or the soil. Offer surplus and non-recyclable solutions to a licensed disposal company. Waste must be classified and labelled prior to recycling or disposal. Send to a licensed waste management company. Dispose of as hazardous waste in compliance with local and national regulations. Dispose of product residue in accordance with the instructions of the person responsible for waste disposal.
Contaminated packaging	:	Do not re-use empty containers.

SECTION 14. TRANSPORT INFORMATION

International Regulation

IATA-DGR

UN/ID No.	:	1202

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Proper shipping name	:	Diesel fuel
Class	:	3
Packing group	:	III
Labels	:	3
Packing instruction (cargo aircraft)	:	366

IMDG-Code

UN number	:	1202
Proper shipping name	:	DIESEL FUEL
Class	:	3
Packing group	:	III
Labels	:	3
EmS Code	:	F-E, S-E
Marine pollutant	:	no

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

TDG

UN number	:	1202
Proper shipping name	:	DIESEL FUEL
Class	:	3
Packing group	:	III
Labels	:	3
ERG Code	:	128
Marine pollutant	:	no

Special precautions for user

Not applicable

SECTION 15. REGULATORY INFORMATION

WHMIS Classification : B3: Combustible Liquid
D2A: Very Toxic Material Causing Other Toxic Effects
D2B: Toxic Material Causing Other Toxic Effects

This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.

The components of this product are reported in the following inventories:

DSL	On the inventory, or in compliance with the inventory
TSCA	All chemical substances in this product are either listed on the TSCA Inventory or are in compliance with a TSCA Inventory exemption.
EINECS	On the inventory, or in compliance with the inventory

SECTION 16. OTHER INFORMATION

For Copy of (M)SDS	:	Internet: www.petro-canada.ca/msds Canada-wide: telephone: 1-800-668-0220; fax: 1-800-837-

1228
For Product Safety Information: 1 905-804-4752

Prepared by : Product Safety: +1 905-804-4752

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

golder.com

Waste Management and Disposal Plan

Waste Management Plan

2021 Site Remediation Confirmation and Environmental Site Assessment - Camp Farewell, Niglintgak and Unipkat I-22

Submitted to:

Shell Canada Limited
400 - 4th Avenue SW, P.O. Box 100, Station M
Calgary, Alberta T2P 2H5

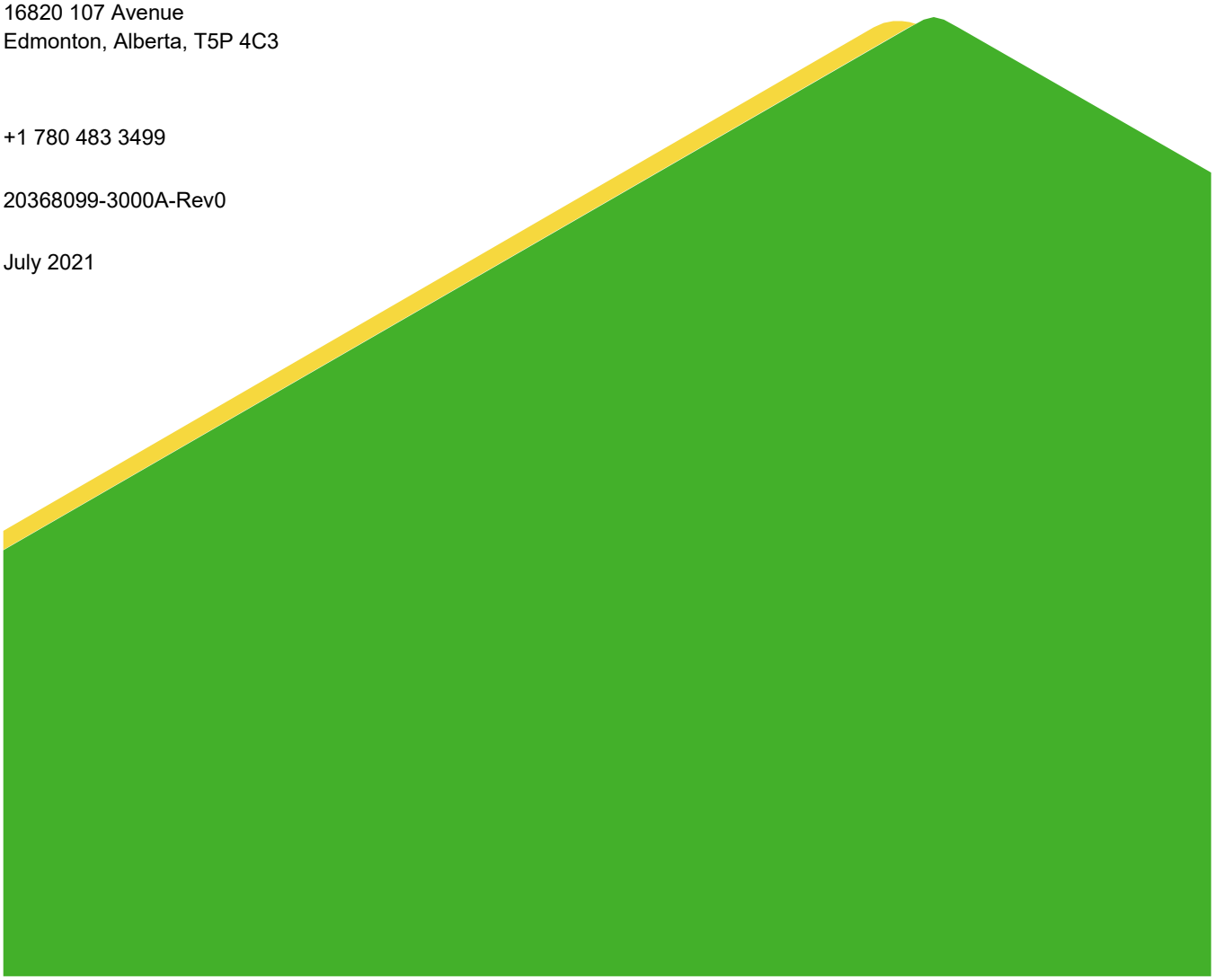
Submitted by:

Golder Associates Ltd.
16820 107 Avenue
Edmonton, Alberta, T5P 4C3

+1 780 483 3499

20368099-3000A-Rev0

July 2021



Distribution List

1 electronic copy: Shell Canada Limited

1 electronic copy: Golder Associates Ltd.

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FIGURES

APPENDICES

1.0 NAME AND CONTACT OF THE LICENSEE

Licensee:

Shell Canada Energy

400 4th Ave SW, P.O. Box 100 Station M,

Calgary, Alberta T2P 2H5

Key Contact:

Christopher Boyd

Environmental Project Manager

Telephone: 403-691-2855

Email: Christopher.Boyd@shell.com

2.0 GEOGRAPHIC OUTLINE OF THE AREA COVERED BY THE WMP

The Camp Farewell site is located at 69°12’30.0’’N latitude and 135°06’04.4’’W longitude on the Mackenzie River within the Inuvialuit Settlement Region (ISR) on the northeastern bank of the Middle Channel of the Mackenzie River Delta, NWT. The Site is approximately 150 kilometres (km) northwest of Inuvik (Figure 1).

The Site encompasses a land area of approximately 14 hectares (35 acres; Figure 1) within the Kendall Island Bird Sanctuary.

The work being completed at Niglintgak and Unipkat I-22 do not require a water licence as there will be no direct use of water or disposal of waste at these sites.

3.0 DESCRIPTION OF THE OPERATION AND FACILITIES COVERED BY THE WASTE MANAGEMENT PLAN (WMP)

3.1 Introduction and Project Details

Golder Associates Ltd. (Golder) is Principal Contractor to Shell Canada Limited (Shell) to complete environmental services at the former Camp Farewell site (the Site) located in the Mackenzie Delta region of the Northwest Territories (NWT). This Waste Management Plan (WMP) has been prepared by Golder for the project and describes Golder’s approach for waste management. Camp Farewell is operating under Inuvialuit Water Board (IWB) Water Licence NL71-1834 which requires a plan to address waste generated by the barge during the project activities, as per Part D, Item 16 of the licence.

The duration of the 2021 Camp Farewell confirmation sampling of the Site (the Project) is approximately 30 days. On-site personnel will be accommodated in a barge camp that will be anchored at the Camp Farewell site for the duration of the activities. It is anticipated that approximately 10 personnel will be stationed on the barge at any given time. The barge camp being utilized for the Project can accommodate up to 80 people and consists of living quarters with kitchen, dining room, washrooms, laundry and recreational rooms.

The barge camp will be anchored to an existing bollard as well as to two deadman anchors at the barge landing area.

3.2 Objectives

The objective of the WMP is to be in compliance with Parts D and F of IWB licence NL71-1834 and will apply to personnel involved in the generation, treatment, handling, transport, and disposal of waste materials for the 2021 Camp Farewell project. The work being completed at Niglintgak and Unipkat I-22 will be conducted as day trips from the barge at Camp Farewell and any waste generated will be removed from Niglintgak and Unipkat I-22 for disposal via the barge camp at Camp Farewell.

This WMP characterizes the waste present on-site and the most effective ways to dispose of the waste generated during the 2021 summer program. On-site personnel will be accommodated in a barge camp that will be anchored at the Camp Farewell site for the duration of the work.

4.0 DESCRIPTION OF TREATMENT AND DISPOSAL TECHNOLOGY AND FACILITIES

No waste generated by barge camp operations, test pitting or groundwater sampling activities will be treated or disposed of at the Site. Waste generated will be removed for off-site disposal as described in following sections.

The former sewage lagoon was excavated and backfilled in 2013. Other Site infrastructure was decommissioned between 2014 and 2019, except for an emergency shelter, which has been left for use by the local community.

5.0 TYPES AND ESTIMATED QUANTITY OF WASTES TO BE GENERATED OR MANAGED

5.1 Waste Definitions

Golder and its contractors are responsible for ensuring that all existing and generated wastes are properly identified, characterized and classified as hazardous or non- hazardous and to develop safe and efficient handling strategies that assure regulatory compliance. The WMP will be distributed to all personnel and regular tailgate meetings will stress the importance of Shell's waste management principles and the duties associated with waste segregation.

The following sections provide definitions on the different types of waste, and estimated quantity, that may be encountered while carrying out the Project. Waste is defined as a product or substance that is no longer of any use to the Project and is intended for disposal.

5.1.1 Solid Waste

Solid waste generated from the operation of the barge camp during the Project is expected to include kitchen waste and general refuse (domestic waste). Domestic waste will be stored in garbage bins on the barge, which, once full, will be transferred to a metal container unit on the barge. This unit will be secured to prevent odours from attracting wildlife. Based on previous field programs at the Site, it is estimated that the daily volume of domestic waste generated by the barge camp will be approximately 1 m^3/day. During the Project, when the metal container unit becomes full, garbage will be removed and transported by boat to Inuvik where it will be disposed of at the Inuvik landfill.

5.1.2 Wastewater

Wastewater generated from the operation of the barge camp is expected to include grey water and sewage from the camp kitchen, laundry room, and washrooms. Grey water and sewage will be stored in three combined grey and black (sewage) 4,000-L holding tanks on the barge. There is also a spacer barge with one 45,000-L tank for storage capacity, if required. Based on previous field programs at the Site, it is estimated that the daily volume of

wastewater generated by the barge camp will be approximately 4 m^3/day. Upon completion of the Project, wastewater will be transported to Inuvik and disposed of at the Town of Inuvik sewage lagoon.

Purge water removed from groundwater monitoring wells during sampling will temporarily be stored in resealable waste drums on-site until the end of the program, then it will be removed for off-site disposal at the Town of Inuvik disposal facility.

5.1.3 Hazardous Waste

Hazardous waste generated from test pitting activities such as waste oil, oil and fuel filters are expected throughout the project. All hazardous waste will be properly packed in approved transport containers and shipped to a licensed disposal site. EGT will be responsible for the disposal of any hazardous waste generated during the Project.

5.1.4 Anticipated Waste

During the 2021 Project duration, the following waste is anticipated to be generated during the Project:

- domestic non-hazardous waste (paper, food, tin cans, plastic packaging, metal and non-recyclable glass jars);
- commercial non-hazardous waste (plastic packaging, flagging tape, stakes, and similar items);
- grey water, purge water and sewage waste;
- recyclable beverage containers; and
- grease, used oil, filters, rags, used spill containment kits and other equipment fluids.

6.0 ACTIONS TO BE TAKEN TO REDUCE, COLLECT, STORE, TREAT, REUSE, RECYCLE AND DISPOSE OF WASTES

This WMP incorporates the basic principles of waste management, which include source reduction, reuse, recycling/recovery, treatment and disposal. The Project is committed to conducting operations within the accepted environmental standards of the construction industry and IWB licence NL71-1834. Management of waste is an important consideration of Shell's operations. Where possible, every effort is made to minimize waste production by incorporating the principles of waste: Reduction, Reuse, Recycle and Recover.

- Source reduction includes the elimination or reduction of the volume or toxicity of waste by adopting practical methods such as using alternative materials or processes. This principle can be achieved by material elimination, inventory control and management, material substitution, process modification and improved housekeeping, maintenance and training.
- Reuse is achieved by using a product more than once for the same application or different purposes. Reusing materials such as certain food and beverage containers, pallets, etc., can reduce the amount of waste generated.
- Recycling/recovery of products that typically have one use is an excellent method of reducing the volume of waste generated at a worksite, sorting products so they can be managed in bulk eliminates the need for additional handling and allows for different products to be managed by efficient recycling processes.

- Disposal of waste is considered the final option for waste management. When disposing of waste, the type of waste, volume, location and final containment must be considered. The waste disposal options available to this Project include licensed off-site solid waste sites and municipal sewage lagoons.

7.0 TREATMENT, EFFLUENT AND WASTE QUALITY STANDARDS TO BE ACHIEVED

No waste generated by barge camp operations, test pitting or groundwater sampling activities will be treated or released on the barge or the Site.

8.0 FINAL WASTE DISPOSAL OR REUSE METHODS AND LOCATIONS

8.1 Non-Hazardous Commercial and Domestic Waste

Non-hazardous industrial and domestic waste will consist of paper, food, tin cans, plastic packaging, metal and non-recyclable glass jars. Waste will be stored onboard the barge camp and will be periodically transported and disposed of at a licensed landfill facility. Other non-hazardous commercial waste is expected to be composed of plastic packaging, flagging tape, stakes, and similar items. All waste and debris will be collected daily and stored temporarily in wildlife proof containers and regularly transported to an approved landfill (e.g., the Town of Inuvik Solid Waste Disposal Facility). Shell received approval from the Town of Inuvik to accept non-hazardous solid waste (Appendix A).

8.2 Grey Water and Sewage Waste

Grey water and sewage waste will be stored onboard the barge camp and will be transferred to the Town of Inuvik sewage lagoon at the end of each season or once the Project is completed. Shell received approval from the Town of Inuvik to accept domestic sewage water (Appendix A).

8.3 Recyclables

All personnel will be made aware of the recycling program and notes will be posted in the camp. Recyclable beverage containers will be collected in clearly labelled containers. Recyclables will be collected and transported to the bottle depot in the community of Inuvik.

8.4 Hazardous Waste

The GNWT-ENR, Environmental Protection Section developed a Guideline for the General Management of Hazardous Waste in the NT, which outlines the registration and tracking of generators, carriers and receivers of hazardous waste in the NT. Golder's subcontractor, EGT will be responsible for any hazardous waste generated during the Project and will provide a copy to Golder.

9.0 OPERATOR QUALIFICATIONS AND TRAINING

On-site personnel will receive basic waste management training as part of their orientation. Personnel managing waste will be certified in Workplace Hazardous Material Information System (WHMIS) and Transportation of Dangerous Goods (TDG).

10.0 REPORTING

An annual report detailing the waste types, volumes and final disposals of the 2021 Project at Camp Farewell will be submitted to the IWB by March 31, 2022, in accordance with Water Licence N7L1-1834.

11.0 CLOSURE

We trust the information provided herein meets your requirements. If you have any questions about the contents of this letter, please contact the undersigned, or Christopher Boyd (403-691-2855; Christopher.Boyd@shell.com), at your convenience.

Golder Associates Ltd.

Punchalee Clair, P.Eng.
Project Manager
902-406-1668 ex.3622
punchalee_clair@golder.com

Lenz Haderlein, M.Sc., P.Ag.
Principal, Project Director
780-509-2427
lenz_haderlein@golder.com

PC/LH/hf

Figure

LEGEND

- Monitoring Well
- Bollard
- 2019 Vegetation Boundary
- 35014-060727 Monument
- Berm
- Site Boundary
- Control Box
- Edge of Gravel
- Power Pole
- Edge of River
- River Double
- Sand
- Fuel Tank
- Top of Bank
- Fuel Tank
- Burn Pit
- Airstrip

0 50 100

1:2,800 METRES

NOTE(S)
1. ALL UNITS ARE IN METRES UNLESS OTHERWISE NOTED
2. COORDINATE SYSTEM IS UTM ZONE 8 NAD 83

REFERENCE(S)
1. NORTHWEST TERRITORIES, STATE OF ALASKA, ESRI CANADA, ESRI, HERE, GARMIN, FAO, NOAA, USGS, EPA, NPS, NRCAN, PARKS CANADA, ESRI, USGS, MAXAR
2. SPATIAL DATA FROM IEG CONSULTANTS. PROVIDED BY SHELL CANADA LIMITED. RECEIVED: 19 NOVEMBER 2020

CLIENT
SHELL CANADA LIMITED

PROJECT
TECHNICAL SCOPE OF WORK

TITLE
CAMP FAREWELL BASE MAP

CONSULTANT
GOLDER
MEMBER OF WSP

YYYY-MM-DD	2021-04-06
DESIGNED	S. VILLENEUVE
PREPARED	J. REDSTONE
REVIEWED	P. CLAIR
APPROVED	L. HADERLEIN

PROJECT NO.	PHASE	REV.	FIGURE
20368099	3000A	Z.0	1

PATH: S:\Clients\Shell\Camp_Farewell\11_GIS\ARCGIS\CampFarewell_TechSOW\CampFarewellCampFarewell.aprx, PRINTED ON: AT: 2:15:34 PM

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B

APPENDIX A

Town of Inuvik Waste Acceptance Letter

TOWN OF INUVIK
2 FIRTH ST, PO BOX 1160
INUVIK NT X0E 0T0

P 867.777.8600
F 867.777.8601
WWW.INUVIK.CA

June 16, 2021

Golder Associates Ltd.
201 Brownlow Avenue
Suite 26
Dartmouth, NS B3B 1W2

Attention: Ms. Stephanie Villeneuve

Re: Use of Sewage and Solid Waste Dumping Facilities for Camp Farewell Water License (N7L1-1834)

Ms. Villeneuve:

Please be advised that the Town of Inuvik acknowledges that Golder Associates may use the above-mentioned facilities in conjunction with the Camp Farewell Water License (N7L1-1834). As part of this approval Golder Associates or any contractor working on their behalf has acknowledged that there will be a fee for use of these facilities. In addition, they shall inform the Town of Inuvik Director of Public Services when they are to make use of the sewage dumping facility and report the volume of sewage brought in from this project.

The Town will accept in principle the above-mentioned products provided they follow the guidelines and fees as set out in the various Town of Inuvik by-laws. All the waste must be domestic use type only. None of it shall contain any drilling or industrial type waste.

We are required as part of our water license to account for these types of additional wastes entering our sewage lagoon and solid waste site, respectively.

If you have any questions or concerns, please do not hesitate to contact me. Thank-you in advance for your cooperation.

Regards

Town of Inuvik

Grant Hood
Senior Administrative Officer

CC: Rick Campbell – Town of Inuvik – Director of Public Services

EISC Decision Letter

ENVIRONMENTAL IMPACT SCREENING COMMITTEE

June 28th, 2021 EISC Registry File: [**05-18-01**]

Punchalee Clair
Golder Associates Ltd.

Project Title: Camp Farewell 2018 Remediation Program

Proponent: Shell Canada Energy

Dear Ms. Clair:

RE: Amendment to a Development – Scope of Work

Thank you for your letter of April 21st, 2021, in which you requested an amendment to your previously screened file: namely 05-18-01, and your responses to our information requests.

The Environmental Impact Screening Committee (EISC) reviewed the original file and your letter requesting the amendment. The EISC notes that this request is for additional horizontal and vertical delineation of Petroleum Hydrocarbons (PHC) in soil for on-site lease areas in 2021 and off-lease areas in 2022. The amendment request includes additional groundwater sampling for PHCs, and Polycyclic Aromatic Hydrocarbons, dissolved metals and routine potability parameters from existing monitoring wells in 2021 and from new and existing monitoring wells in 2022.

The EISC has determined that the requested amendment to EISC file 05-18-01 does not require any additional environmental impact screening, and has approved your amendment request.

All prior EISC recommendations and conditions regarding this project continue to apply. Any proposed additional remediation activities will be subject to screening, and the Proponent will be required to submit a new project file to the EISC for screening at that time.

If you have any questions regarding this decision, please don't hesitate to contact me directly at 1(867)777-2828, Extension 2138.

Sincerely,

Michel Lindsay
EIS Coordinator, Environmental Impact Screening Committee

Cc. EISC Distribution List

EISC Distribution List

Larry Carpenter, Chair, Wildlife Management Advisory Council NWT
Alexandra Inglangasuk, Staff, Wildlife Management Advisory Council NWT
Rosemin Nathoo, Staff, Wildlife Management Advisory Council NWT
William Storr, Acting Chair, Wildlife Management Advisory Council NS
Kaitlyn Wilson, Staff, Wildlife Management Advisory Council NS
Herb Nakimayak, Chair, Fisheries Joint Management Committee
Kiyo Campbell, Staff, Fisheries Joint Management Committee
Marissa Murphy, Staff, Fisheries Joint Management Committee
Catherine Cockney, Co-Chair, Environmental Impact Review Board
Ethel-Jean Gruben, Co-Chair, Environmental Impact Review Board
David Livingstone, Chair, Environmental Impact Screening Committee
Dennis Arey, Chair, Inuvialuit Game Council
Davonna Kasook, Staff, Inuvialuit Game Council
Leanne Gordon, Staff, Inuvialuit Game Council
Kayla Hansen-Craik, Marine Protected Areas, Joint Secretariat
Kirt Ruben, Community-Based Monitoring Program, Joint Secretariat
Gillian McNaughton, Traditional and Local Knowledge, Joint Secretariat
Jen Lam, Committee Program Manager, Joint Secretariat
Melody Nice, Executive Director, Joint Secretariat
Paulatuk Hunters and Trappers Committee
Aklavik Hunters and Trappers Committee
Inuvik Hunters and Trappers Committee
Olokhaktomiut Hunters and Trappers Committee
Sachs Harbour Hunters and Trappers Committee
Tuktoyaktuk Hunters and Trappers Committee
Mardy Semmler, Executive Director, Inuvialuit Water Board
Bijaya Adhikari, Inuvialuit Water Board
Charles Klengenberg, Director, Inuvialuit Land Administration
Glenna Noksana, Staff, Inuvialuit Land Administration
Emmanuel Onumonu, Staff, Inuvialuit Land Administration
Duane Smith, Chair, Inuvialuit Regional Corporation
Dan Carmichael, Regional Superintendent, Department of Lands, GNWT
Lorraine Seale, Department of Lands, GNWT
Marsha Branigan, Biologist, Environment and Natural Resources, GNWT
Loretta Ransom, Environment and Natural Resources, GNWT
Patrick Clancy, Environment and Natural Resources, GNWT
Laurie McGregor, Environment and Natural Resources, GNWT
Nathen Richea, Environment and Natural Resources, GNWT
Environmental Assessment & Monitoring, GNWT
Don Craik, Regional Superintendent, Industry, Tourism and Investment, GNWT
Dinah Elliott, Senior Policy Analyst, Industry, Tourism and Investment, GNWT
Johnny Lennie, Oil and Gas Rights, GNWT
Lorie Fyfe, Regional Superintendent, Municipal and Community Affairs, GNWT
Naomi Smethurst, Education, Culture and Employment, GNWT
Fisheries Protection Program, Department of Fisheries and Oceans
Beaufort Sea Partnership, Department of Fisheries and Oceans
Veronique D'Amours-Gauthier, Biologist, Department of Fisheries and Oceans

Bhamjee Rashaad, Manager, Canadian Coast Guard
Prairie and Northern Region, Transport Canada
Nelson Perry, Parks Canada
Jay Frandsen, Parks Canada
Eric Reed, Canadian Wildlife Services, Environment Canada
NWT Environmental Assessments, Environment and Climate Change Canada
David Alexander, Project Manager, Canadian Economic Development Agency (CanNor)
Alec Sandra Macdonald, Specialist, Gwich'in Land and Water Board
Gnama Kanda, Transboundary Specialist, Gwich'in Tribal Council
Georgina Williston, Senior Environmental Assessment Coordinator, EC